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Maintenance Task Data Base for Buildings: Electrical Systems

by
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This report describes the building task maintenance and repair data base development and gives examples of its application. It is one of a series of special reports on the maintenance and repair data base. While this report describes electrical systems, other reports in the series cover heating, ventilation, and air-conditioning (HVAC) systems, plumbing systems, and electrical systems.

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FOREWORD

This research was conducted for the Directorate of Military Programs, Headquarters, U.S. Army Corps of Engineers (HQUSACE) and the Office of the Assistant Chief of Engineers under various research, development, testing, and evaluation (RDTE) and reimbursable funding documents. Work began under RDTE in 1980 and continued in reimbursable projects during 1984 through 1989. The technical monitor for the RDTE part was Dr. Larry Schindler (CEMP-EC) and for the reimbursable part was Ms. Val Corbridge (DAEN-ZCF-R).

The work was performed by the Facility Systems Division (FS), U.S. Army Construction Engineering Research Laboratory (USACERL). The Principal Investigators were Dr. Edgar Neely and Mr. Robert Neathammer (USACERL-FS). The primary contractor for much of the data development was the Department of Architectural Engineering, Pennsylvania State University. Dr. Michael O'Connor is Chief of USACERL-FS.

COL Everett R. Thomas is Commander and Director of USACERL, and Dr. L.R. Shaffer is Technical Director.

CONTENTS

MAINTENANCE TASK DATA BASE FOR BUILDINGS: ELECTRICAL SYSTEMS

1 INTRODUCTION

Background

Maintenance* and repair (M&R) cost estimates are needed during planning, design, and operations/maintenance of Army facilities. During planning, life-cycle costs are needed to evaluate alternative ways of meeting requirements (e.g., lease, new construction, renovate existing facilities). During design, M&R requirements for various types of components, such as built-up or shingle roofs, are needed so that the total life-cycle cost of different designs can be minimized. Finally, once the facility has been constructed, outyear predictions of maintenance and repair costs are needed so that enough funds can be programmed to ensure that Army facilities are maintained properly and do not deteriorate due to lack of maintenance.

The Directorate of Engineering and Construction (EC), Headquarters, U.S. Army Corps of Engineers (HQUSACE),** asked the U.S. Army Construction Engineering Research Laboratory (USACERL) to coordinate the assembly of a single centralized maintenance and repair data base for use by Corps designers. This research was required because designers were not able to obtain reliable maintenance and repair data to support their life-cycle cost (LCC) analysis from installations or from the technical literature. One of the first tasks in the research effort was to determine if reliable data bases, which could be adapted for Corps use, existed in government or private industry. Comprehensive data bases of maintenance costs for government and private sector facilities did not exist. The little data available always depended on widely varying standards of maintenance used to maintain the facilities for which the data was collected and thus was unreliable for prediction purposes. Recognizing this, HQUSACE asked USACERL to develop a maintenance and repair cost data base. This data is for use by U.S. Army Corps of Engineers (USACE) designers in performing life-cycle cost analyses during the design of new facilities. Initial results were presented in several USACERL reports.[1]

Soon after this request, the Facilities Programming and Budgeting Branch of the Facilities Engineering Directorate asked USACERL to develop prediction models for outyear maintenance requirements of the Army facility inventory. The Programming Office of EC, responsible for Military Construction, Army (MCA) planning, also requested that USACERL provide methods and automated tools to help installations perform economic analyses. Part of the objective was to allow analysts to obtain future maintenance cost data.

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*Maintenance in this report means all work required to keep a facility in good operating condition, it includes all maintenance, repair, and replacement of components required over the life of a facility.

**At the time of this request, EC was part of the Office of the Chief of Engineers, which has since reorganized. In addition, EC has now become the Directorate of Military Programs.

[1] R.D. Neathammer, *Life Cycle Cost Database Design and Sample Cost Data Development*, Interim Report P-120/ADA0997222 (U.S. Army Construction Engineering Research Laboratory [USACERL], February 1981), R.D. Neathammer, *Life-Cycle Cost Database. Vol I, Design*, and *Vol II, Sample Data Development*, Technical Report P 139/ADA126644 and ADA126645 (USACERL, January 1983), Appendices E through G.

In response to these requests, USACERL began a multiyear effort to develop a comprehensive maintenance and repair cost research program for buildings. This coordinated program is the key to all detailed estimation of future maintenance costs for Army facilities.

Research Performed and Reports Published

This is one of several interrelated reports addressing maintenance resource prediction in the facility life-cycle process. The total research effort is described in a USACERL Technical Report.[2]

The first research product was a data base containing maintenance tasks related to every building construction component. This data base provides labor, material, and equipment resource information. The frequency of task occurrence is also included. This information is published in a series of four USACERL Special Reports by engineering systems: (1) architectural, (2) heating, ventilating, and air-conditioning (HVAC), (3) plumbing, and (4) electrical. The title for the series is *Maintenance Task Data Base for Buildings*.[3] Table 1 shows an example from this data base. This data is also available in electronic form. The data base is used in a personal computer (PC) system under the Disk Operating System (DOS). This computer program allows a facility to be defined by entering the components and component quantities comprising the facility. The tasks are used to determine the resources required annually to keep the facility maintained.

The second research product was a component resource summary for the first 25 years of a facility. The tasks for the component were scheduled and combined into one set of annual resource requirements. This annual resource information is published in a series of four USACERL Special Reports titled *Building Component Maintenance and Repair Data Base*.[4] An example from this data base is shown in Table 2. The data base is also available in electronic form. This data can be used to perform special economic analyses such as one for a 20-year life using a 10-percent discount rate.

The third research product was a set of 25-year present worth factor tables for use by designers in selecting components for discount rates of 7 and 10 percent. The annual component resource values were multiplied by the appropriate present worth factor and added for the 25 years to produce one set of resource values. This information is published in a series of four USACERL Special Reports titled

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[2] E S Neely, R D. Neathammer, J.R. Stirn, and R.P. Winkler, *Maintenance Resource Prediction in the Facility Life-Cycle Process*, Technical Report P-91/10 (USACERL, March 1991).

[3] E S Neely, R D Neathammer, J.R. Stirn, and R.P. Winkler, *Maintenance Task Data Base for Buildings: Heating, Ventilation, and Air-Conditioning Systems*, Special Report P-91/21 (USACERL, May 1991); E.S. Neely, R.D. Neathammer, J.R. Stirn, and R P Winkler, *Maintenance Task Data Base for Buildings. Plumbing Systems*, Special Report P-91/18 (USACERL, May 1991).

[4] E.S. Neely, R.D Neathammer, J.R. Stirn, and R.P. Winkler, *Building Component Maintenance and Repair Data Base for Buildings: Architectural Systems*, Special Report P-91/27 (USACERL, May 1991); E. S. Neely, R. D. Neathammer, J.R. Stirn, and R P. Winkler, *Building Component Maintenance Data Base for Buildings. Heating, Ventilation, and Air-Conditioning Systems*, Special Report P-91/22 (USACERL, May 1991); E.S. Neely, R.D. Neathammer, J.R. Stirn, and R.P. Winkler, *Building Component Maintenance and Repair Data Base for Buildings. Plumbing Systems*, Special Report P-91/30 (USACERL, May 1991); E S Neely, R D Neathammer, J.R. Stirn, and R.P. Winkler, *Building Component Maintenance and Repair Data Base for Buildings: Electrical Systems*, Special Report P-91/19 (USACERL, May 1991).

Table 1

Typical Task Data Form

Task Code: 1131411

Component: MERCURY VAPOR FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING F TURES

Task Description: M/R MAINTENANCE AND REPAIR

Unit of Measure: COUNT Frequency of Occurence: H: 5.00 A: 10.00 L: 20.00
Once every (H, A, L) years

Persons per Team: 1 Task Duration: 0.6154 hours

Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hours
1. REMOVE AND REINSTALL LOUVER	0.004100
2. REMOVE AND REINSTALL 1 TUBE	0.071200
3. REMOVE OLD/REINSTALL BALLAST	0.384000
4. TEST FIXTURES	0.014100

Material Resources

Description	Quantity	Unit Cost
BALLAST	1	50.0000
		50.0000

SUMMARY

Resources UOM	Direct	Indirect	Total
Labor Hours	0.475400	0.142020	0.615420
Material Cost	50.000000		50.000000
Equipment Hours			0.615420

Table 2

Typical Component Summary

CACES No.: 113130 - Flour. Lighting Fixt. 80W. 113141 - Mercury Vapor Fixt. 175W

Labor Hours	Materials $	Equipment Hours	YR	Labor Hours	Materials $	Equipment Hours
0.0000	0.0000	0.0000	1	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	2	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	3	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	4	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	5	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	6	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	7	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	8	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	9	0.0000	0.0000	0.0000
0.8784	20.6700	0.8784	10	0.6840	81.6200	0.6840
0.0000	0.0000	0.0000	11	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	12	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	13	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	14	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	15	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	16	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	17	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	18	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	19	0.0000	0.0000	0.0000
0.7413	67.8400	0.7413	20	0.5816	134.6200	0.5816
0.0000	0.0000	0.0000	21	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	22	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	23	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	24	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	25	0.0000	0.0000	0.0000

All data is per fixture.

Building Maintenance and Repair Data for Life-Cycle Cost Analyses.[5] Table 3 shows an example from this data base. The data base is also available in electronic form. The first three resource columns provide data to allow designers to calculate the life-cycle costs at any location by multiplying by the correct labor rate, equipment rate, and material geographic factor. The multiplication and addition have been performed for the Military District of Washington, DC, and results are given in the fourth column of the table. The right section of the table is information that can be entered into computer systems that perform life-cycle cost analysis.

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[5] E.S. Neely, R.D. Neathammer, J.R. Stim, and R.P. Winkler, *Building Maintenance and Repair Data for Life-Cycle Cost Analyses. Architectural Systems*, Special Report P 91/17 (USACERL, May 1991); E.S. Neely, R.D. Neathammer, J.R. Stim, and R.P. Winkler, *Building Maintenance and Repair Data for Life Cycle Cost Analyses. Heating, Ventilation, and Air-Conditioning Systems*, Special Report P 91/20 (USACERL, May 1991), E.S. Neely, R.D. Neathammer, J.R. Stim, and R.P. Winkler, *Building Maintenance and Repair Data for Life Cycle Cost Analyses. Plumbing Systems*, Special Report P-91/24 (USACERL, May 199'), E.S. Neely, R.D. Neathammer, J.R. Stim, R.P. Winkler, *Building Maintenance and Repair Data for Life-Cycle Cost Analyses: Electrical Systems*, Special Report P-91/26 (USACERL, May 1991).

Table 3

Life-Cycle Cost Analysis

EPS BASED MAINTENANCE AND REPAIR COST DATA FOR USE IN LIFE CYCLE COST ANALYSIS ($ PER UNIT MEASURE) PAGE 57

COMPONENT DESCRIPTION		PRESENT WORTH OF ALL 25 YEAR MAINTENANCE AND REPAIR COSTS (d = 10%)				ANNUAL MAINTENANCE AND REPAIR PLUS HIGH COST REPAIR AND REPLACEMENT COSTS						
		By Resources			Washington D.C. Total	Annual Maintenance and Repair			Replacement and High Costs Tasks			
	um	labor	material	equipment		labor	material	equipment	Yr	labor	material	equipment
LIGHTING SYSTEM												
LIGHTING FIXTURES												
INCANDESCENT LIGHTING FIXT	CT	0.12489	2.99191	0.12489	6.20	0.01012	0.14063	0.01012	20	0.44850	16.96000	0.44850
QUARTZ FIXTURE	CT	0.18095	21.69174	0.18095	26.33	0.01796	2.07824	0.01796	20	0.44850	58.30000	0.44850
FLOUR. LIGHTING FIXT. 80W.	CT	0.35366	14.22361	0.35366	23.30	0.03731	0.57794	0.03731	20	0.74126	67.84000	0.74126
MERCURY VAPOR FIXT. 175W	CT	0.27593	40.56016	0.27593	47.64	0.02905	3.46673	0.02905	20	0.58162	134.62000	0.58162
METAL-HALIDE FIXT. 175W.	CT	0.31034	85.72582	0.31034	95.69	0.03626	9.17686	0.03626	20	0.43550	197.16000	0.43550
EMERGENCY LIGHTING FIXT.	CT	0.71076	16.09790	0.71046	34.32	0.04779	0.60201	0.04779	20	3.14782	100.70000	3.14782
H.P. SODIUM FIXT. 250W.	CT	0.30038	167.06999	0.15019	174.29	0.03465	16.20810	0.01733	20	0.44850	436.72000	0.22425
L.P. SODIUM FIXT. 200W.	CT	0.30038	99.54375	0.15019	106.77	0.03465	8.32916	0.01733	20	0.44850	341.32000	0.22425

A fourth research product was a PC system that allows facilities to be modeled by entering the components that comprise the facility. Future years resource predictions are produced by applying the individual tasks and then forming resource summaries by subsystems, systems, facilities, installations, reporting installations, Major Commands (MACOMS) and Army. A summary level computer system was also developed for use by the Department of the Army (DA) and MACOMS. The summary level system applies the most basic data contained in the current facility real property inventory files: (1) current facility use, (2) floor area, and (3) construction date. User' and system's manuals will be published as USACERL ADP Reports.

Objective

The objective of this report is to describe the component summaries for electrical systems and give examples for using these tables in performing the component during the design process.

Approach

The first activity in the research was to survey the literature for available maintenance data. No comprehensive task resource data base was located. The Navy has developed a series of manuals dealing with labor hours required to perform several basic maintenance tasks. This work has been adopted by the Department of Defense (DOD) for tri-service use. A series of Technical Bulletins (TBs) under the general title *Engineered Performance Standards* (EPS) has been published.

The next activity was to survey USACE District offices to solicit their input for a data base. A guiding committee composed of District personnel, installation representatives, and private sector consultants met and agreed upon a general data base design. More importantly, they recommended that the data base be developed using the EPS rather than historical data.

Once the data base was developed, component summaries were created by summing all tasks for a component. These summaries were then input into a program that computed present worth values for each component.

The calculation procedures described in this report were performed and summarized for standard Army life-cycle analysis of 25 years with a 7-or 10-percent present worth factor. Final results are published in the USACERL Special report series *Building Maintenance and Repair Data Base for Life-Cycle Analyses.*

Scope

The 25-year component resources summary tables are for DOD designers and can also be used by those in the private sector.

Mode of Technology Transfer

The tables pertinent to designer use will be issued as a supplement to Technical Manual (TM) 5-802-1, *Economic Studies for Military Construction Design—Applications.*

2 PROBLEM DEFINITION

In the facility life-cycle process, costs are incurred in construction, operation, maintenance, and disposal of a facility. Past emphasis during the planning, design, and construction phases has been on estimating initial construction costs. The impact of operating and maintaining facilities has always been a secondary consideration. In many cases, the operation and maintenance (O&M) costs are far greater than initial construction costs. Building owners are concerned with the total ownership costs of facilities ier than just the initial construction costs.

The Army has realized the importance of performing total life-cycle cost analyses for facilities at the design stage of accurately forecasting these costs for funds programming. HQUSACE asked USACERL in 1980 to develop a method of estimating future maintenance costs for buildings. In 1982, the programming branch of the former Facilities Engineering Directorate asked USACERL to develop effective models for forecasting facility maintenance resource requirements based on the actual facility.

Life-cycle cost economic studies are an integral part of facility design in the MCA program. Requirements for performing these studies are given in:

- Statutes, Code of Federal Regulations, and Executive Orders for performing analyses when energy is a key cost and for wastewater treatment plants
- USACE *Architectural and Engineering Instructions: Design Criteria*
- Army Regulation (AR) 11-28, *Economic Analysis and Program Evaluation for Resource Management* for general economic analyses.
- TM 5-802-1, *Economic Studies for Military Construction Design--Applications.*

The main purpose of these studies is to minimize the life-cycle costs of Army facilities.

To perform life-cycle cost analyses on facility designs, three categories of costs are needed: initial, operating, and maintenance. Initial costs are usually easy to estimate through existing cost estimating systems such as the Corps of Engineers Computer Assisted Cost Estimating System (CACES) and standard publications such as Means or Dodge. Operating costs can be estimated by using energy consumption models such as the Corps of Engineers Building Loads Analysis and System Thermodynamics (BLAST) program or the Trane Company's Trace program. However, accurate estimates of maintenance costs are not available.

There are no comprehensive data bases of maintenance costs for building components either in the private sector or State/Federal Governments. Some historical data is available from the Building Owners' and Managers' Association reports. Within the Army, the Integrated Facilities System (IFS) contains some historical data; however, it does not have a feature for retaining several types of a building component (e.g., having brick and wood exteriors or three types of floor covering). Moreover, the data in IFS has not been kept current. For example, at one installation several family housing units were shown as having wood siding when, in fact, they had been covered with aluminum siding several years earlier.

3 DATA BASE DEVELOPMENT

The first step in data base development was to subdivide a building into systems, subsystems, and components, and define maintenance tasks. The second step was to estimate resources for each task.

Building Subdivision

The UNIFORMAT method of dividing a building into systems, subsystems, and components was adopted since it is used by most Federal agencies and many private organizations. Systems requiring little maintenance such as foundations and superstructure were not subdivided.

The level of component detail was determined by maintenance and design personnel. This level varied, depending on the facility classification (e.g., historical) and the costs to collect and maintain data versus the benefit. Appendix A contains a complete list of the subdivisions. Major electrical categories are:

110 Interior Electric
111 Service & Distribution
112 Power System
113 Lighting System
114 Grounding System
120 Special Interior Electrical Systems
121 Sound System
122 Alarm System
123 Television System
124 Control System
125 Hospital System
126 Clock & Program System
127 Electrical Heating System
128 Power Generating System.

Task Development

The primary objective was to develop a data base that is neither time- or cost-dependent. A data base independent of time would also be unaffected by inflation. This condition was achieved for labor and equipment resources through the use of hours. The number of labor hours and equipment hours for a task depends only on the current rates when and LCCA is performed. This process was not possible for material costs.

A typical task data form is shown in Table 1. The EPS adopted by all DOD agencies were used to determine labor resources. A USACERL Technical Report contains a full explanation of use of EPS in developing these resources.[6]

[6] E.S. Neely, R.D. Neathammer, and J.R. Stirn (USACERL, March 1991).

Standard references such as DA criteria documents, Corps of Engineers Unit Price Manuals, Means, and Dodge were used to determine the Washington, DC, area material costs. Material costs in the data base are given in July 1985 dollars for this area. Material costs can be adjusted for site location by applying a geographic location adjustment factor similar to the values shown in Appendix B. Material costs can be adjusted for inflation by applying a time adjustment factor from July 1985 to the new point in time.

Task frequencies are the most subjective portion of the data base and were determined by applying professional experience, trade publication data, and data in manufacturers' literature. A range of values is given to provide more information than one average frequency.

The first activity was to list all maintenance tasks that occur during the life of each component. The next step was to develop resource data for each task. The five sets of elements shown in Figure 1 were needed for developing each task: (1) unit of measure, (2) frequency of occurrence, (3) labor hours, (4) equipment hours, and (5) material costs.

1. Unit of measure. A standard unit of measure for each component was selected based on commonly accepted measurement methods, the measurement units used within IFS, and the level of detail supported by the maintenance personnel.

The standard unit of measure was 1 fixture or circuit.

2. Frequency of occurrence. The frequency of occurrence for tasks is the most subjective element in the data base. The data base developers used their experience and information from journals, reports, and manufacturers to estimate task frequencies.

3. Labor hours. The primary source of labor requirements was the EPS, which are approved for use by all DOD agencies. EPS are based on either methods-time-measurement studies or work sampling studies. Using these techniques, times for performing subtasks were estimated and combined to provide total task times.

The following EPS sources were used:

TB 420-6, *Electric and Electronic Handbook*, February 1982
TB 420-6, *Electric and Electronic Formulas*, October 1972
TB 420-30, *Emergency/Service Handbook*, August 1979

When information was not available within EPS, the data was developed from existing trade journals, reports, and other publications.

4. Material resources. The amounts of materials needed were normally based on EPS and contractor experience. Material costs were taken from CACES, Means, Dodge, and other references.

5. Equipment resources. The equipment hours required for maintenance trucks were developed by dividing the total labor hours for the task by the normal crew size used on the task.

The data base has been reviewed by 13 different maintenance organizations and has been determined to accurately represent the resources required to perform the tasks.

Component Index

Appendix A lists all systems, subsystems, and components in the data base.
Appendix B gives geographical location adjustment factors.

Detailed Task Tables

Appendix C gives detailed resources by subtask for each task.

Summary Task Tables

Appendix D contains summary data from Appendix C. The half page per task given in Appendix C has been summarized into one line in Appendix D. This data includes the CACES number, task description, unit of measure, trade code, task classification (major or minor), the average, high, and low frequencies of task occurrence, labor hours, material costs, and equipment hours.

4 DATA BASE APPLICATION EXAMPLE

The task information can be used to calculate resources to perform the tasks for programming, planning, and staffing. These detailed task tables normally should not be used in performing life-cycle cost analyses. Tables given in the USACERL Special Report series *Building Maintenance and Repair Data for Life-Cycle Cost Analysis* are more appropriate for standard 25-year life-cycle cost analysis using either 7 or 10 percent discount rates. Tables in the USACERL Special Report series *Building Component Maintenance and Repair Data Base* can be used for other life-cycle cost analyses.

The example below is to calculate the cost to maintain and repair all 175 W mercury-vapor light fixtures in an area, given the following information:

Number of fixtures	25
Labor rate	$18.50/hr
Geographic location factor	1.05
Equipment rate	$3.60/hr

Task data for this example is shown in Table 1. The calculation is: (Labor hr/fixture x Labor rate $/hr + Material cost in Washington, DC dollars/fixture x Geographic location factor + Equipment rate $/hr) x Roof area. Substituting the above data:

(.61542 hr/fixture x $18.50/hr + 50 x 1.05 + .61542 hr/fixture
x $3.60 = 66.10078) x 25 fixtures = $1652.52 [Eq 1]

5 PROCEDURES FOR DEVELOPING TASKS

Procedures for developing a tasks can be demonstrated by using the existing task number 1131411, MAINTAIN AND REPAIR OF 175W MERCURY VAPOR LIGHT FIXTURE shown in Table 1. This task involves: removing and reinstalling the louver; removing and reinstalling one tube; removing and reinstalling ballast; and testing fixture.

Task GT-309, found on page 175 of TB 420-6 contains subtasks for this task as shown in Table 4.

In order to repair most light fixtures, the worker must first gain access to it by removing the Louver. Subtask 1, "Remove and Reinstall Louver," gives a labor rate of .00410 hr/fixture for Subtask 1.

The next step, "Remove and Reinstall One Tube," is subtask 2. If we assume that a ladder will be needed, the labor rate will be .07120 hr/fixture.

Subtask 3 lists the labor rate for step three, "Remove Old and Reinstall New Ballast in Fluorescent Fixture," as .0356 to remove and .3484 to reinstall. The total labor rate for subtask 3 would be .38400 hr/fixture.

The final task is to test the newly installed light fixture. Subtask 4 shows this labor rate as .01410 hr/fixture.

The total direct labor hours to perform the entire job would be the sum of all subtasks, or 0.47340 hr/fixture. The indirect time or the time to plan the work, load the truck at the beginning of the day, unload the truck at the end of the day, personal time, delay time, and material handling time must be included to obtain the total onsite labor time. In EPS, this value is expressed as a percentage of the direct labor. When all factors have been considered, the direct labor should be increased by 30 percent or 0.14202 hr/fixture. The total onsite labor hours would then be 0.615420 hr/fixture.

The normal procedure is for the shop to equip a maintenance truck with all required tools such as ladders and handtools. The cost for the truck and equipment is usually based on task duration.

The material cost for ballast, $50/ballast, was taken from Means Electrical Cost Data (p. 191). Because only one material is involved, the material cost for ballast is equal to the total cost.

Table 4

Tasks for a 175W Mercury Vapor Fixture

TASK DATA FORM

Task Code: 1131411

Component: MERCURY VAPOR FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.6154 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL LOUVER	0.004100
2.REMOVE AND REINSTALL 1 TUBE	0.071200
3.REMOVE OLD/REINSTALL BALLAST	0.384000
4.TEST FIXTURES	0.014100

Material Resources

Description	Quantity	Unit Cost
BALLAST	1	50.0000
		50.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.473400	0.142020	0.615420
Material	Cost $	50.000000		50.000000
Equipment	Hours			0.615420

Components In This Task: 1131410

Table 4 (Cont'd)

TASK DATA FORM

Task Code: 1131412

Component: MERCURY VAPOR FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMP
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.0686 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHANGE LAMP IN FLUSH FIXTURE	0.052800

Material Resources

Description	Quantity	Unit Cost
LAMP	1	27.0000
		27.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.052800	0.015840	0.068640
Material	Cost $	27.000000		27.000000
Equipment	Hours			0.068640

Components In This Task: 1131410

TASK DATA FORM

Task Code: 1131413

Component: MERCURY VAPOR FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.5816 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF AND ON	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX AND TAPE ENDS	0.016600
4.DISASSEMBLE/REMOVE FIXTURES	0.090700
5.REMOVE AND UNPACK PARTS	0.030200
6.INSTALL MOUNTING BRACKETS	0.064300
7.ASSEMBLE AND HANG REFLECTOR	0.218600

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	127.0000
		127.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.447400	0.134220	0.581620
Material	Cost $	127.000000		127.000000
Equipment	Hours			0.581620

Components In This Task: 1131410

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LIST OF ACRONYMS

ACE	Assistant Chief of Engineers
AMS	Army Management System
APC	Account Processing Code
AR	Army Regulation
ARR	Annual Requirements Report
ASTM	American Society for Testing and Materials
BLAST	Building Loads Analysis and System Thermodynamics
BMAR	Backlog of Maintenance and Repair
CA	Commercial Activities
CACES	Computer-Assisted Cost Estimating System
CONUS	Continental United States
DA	Department of the Army
DEH	Directorate of Engineering and Housing
DOD	Department of Defense
EA	Economic Analysis
EPS	Engineered Performance Standards
HQ-IFS	Headquarters - Integrated Facilities System
HQDA	Headquarters Department of the Army
IFS	Integrated Facilities System
IJO	Individual Job Order
LCC	Life-Cycle Cost
LCCID	Life-Cycle Cost in Design
M&R	Maintenance and Repair
MACOM	Major Command

MCA	Military Construction, Army
MRPM	Maintenance Resource Prediction Model
OCE	Office of the Chief of Engineers
PAVER	Pavement Maintenance Management System
PC	Personal Computer
PM	Preventive Maintenance
R&D	Research and Development
RAM	Random Access Memory
RMF	Recurring Maintenance Factor
RPI	Real Property Inventory
RPLANS	Real Property Planning System
RPMS	Real Property Management System
SO	Service Order
STANFINS	Standard Army Financial System
TB	Technical Bulletin
URR	Unconstrained Requirements Report
USACE	U.S. Army Corps of Engineers
USACERL	U.S. Army Construction Engineering Research Laboratory
USAEHSC	U.S. Army Engineering and Housing Support Center

APPENDIX A:

TASK DATA BASE INDEX

Caces No : Unit of Measure : Description

```
1100000  INTERIOR ELECTRICAL
  1110000  SERVICE & DISTRIBUTION
    1112000  OVERHEAD SERVICE FEEDER
    1113000  MAIN PROTECTION EQUIPMENT
      1113100   5  SWITCHGEAR, MAIN FRAME, 1200 A.
      1113200   1  FUSE
    1114000  PRIMARY TRANSFORMER
      1114100   1  TRANSFORMER, LIQUID FILLED ABOVE 600 V
      1114200   1  TRANSFORMER, DRY, ABOVE 15,000 V
    1115000  POWER PROTCETION EQUIPMENT
      1115100   5  SWITCHGEAR, INDOOR, 0-600 V
      1115200   5  SWITCHGEAR, INDOOR ABOVE 600 V
    1116000  SECONDARY TRANSFORMER
      1116100   1  TRANSFORMER, LIQUID FILLED BELOW 600 V
      1116200   1  TRANSFORMER, DRY BELOW 15,000 V
    1117000  LIGHTNING PROTECTION
      1117100   5  SWITCHGEAR, INDOOR, BELOW 600 V
      1117200   5  SWITCHGEAR, INDOOR ABOVE 600 V
    1118000  POWER & LIGHTING DISTRIBUTION
      1118100   4  CABLE, THERMOPLASTIC, 601-15,000 V
      1118200   4  CABLE, THERMOSETTING, 601-15,000 V
      1118300   4  CABLE, LEAD COVERED, 601-15,000 V
      1118400   4  CABLE, FLEXIBLE METALIC < 600 VOLT
      1118500   4  BRANCH WIRING, 0-600 V
      1118600   4  BRANCH WIRING, OVER 600 V
      1118700   3  BUSS DUCT
      1118800   4  CONDUIT EMT
    1119000  SPECIAL EQUIPMENT
      1119100   1  METER, DARSONVAL GALVANOMETER
      1119300   1  INVERTER
      1119400   1  RECTIFIER, UNDER 600 V
  1120000  POWER SYSTEM
    1122000  SAFTEY SWITCHES & BREAKERS
      1122100   1  SAFETY SWITCH, ENCLOSED
      1122300   1  CIRCUIT BREAKERS
        1122310   1  CIRCUIT BREAKER, MC, 0-599 V
        1122320   1  CIRCUIT BREAKER, MC, 600 V AND OVER
        1122330   1  CIRCUIT BREAKER, FIXED, 0-599 V
        1122340   1  CIRCUIT BREAKER, FIXED, 600V AND OVER
        1122350   1  CIRCUIT BREAKER, M.C. > 600V 2P
        1122360   1  CIRCUIT BREAKER, M.C. > 600V 3P
        1122370   1  CIRCUIT BREAKER, FIXED < 599V 1P
        1122380   1  CIRCUIT BREAKER, FIXED < 599V 2P
        1122390   1  CIRCUIT BREAKER, FIXED < 599V 3P
        11223A0   1  CIRCUIT BREAKER, FIXED > 600V 1P
        1122380   1  CIRCUIT BREAKER, FIXED > 600V 2P
        11223C0   1  CIRCUIT BREAKER, FIXED > 600V 3P
      1122400   1  SAFETY SWITCHES
        1122410   1  SAFETY SWITCH FUSED 1P
        1122420   1  SAFETY SWITCH FUSED 2P
        1122430   1  SAFETY SWITCH FUSED 3P
        1122440   1  LOW VOLTAGE CARTRIDGE
        1122450   1  PLUG FUSE
```


Caces No : Unit of Measure : Description

```
      1123000  MOTOR STARTER
        1123600   1  MOTOR STARTER, 0-600 V
        1123700   1  MOTOR STARTER, 601-15,000 V
      1124000  CONTACTORS AND RELAYS
      1127000  RECEPTACLES & PLUGS
        1127100   1  WIRING DEVICE, SWITCH
        1127200   1  RECEPTACLE AND PLUG
        1127300   1  SWITCH, PULL CORD
  1130000  LIGHTING SYSTEM
    1131000  LIGHTING FIXTURES
      1131100   1  INCANDESCENT LIGHTING FIXTURE
      1131200   1  QUARTZ LIGHTING FIXTURE
      1131300   1  FLUORESCENT LIGHTING FIXTURE
      1131400   1  HID
        1131410   1  HID, MERCURY VAPOR FIXTURE, 250-W
        1131420   1  HID, METAL HALID FIXTURE, 250-W
      1131500   1  EMERGENCY LIGHTING FIXTURE
      1131600   1  SODIUM FIXTURE
        1131610   1  H.P. 250 WATT
        1131620   1  L.P. 200 WATT
      1131700   1  EXIT LIGHT
  1140000  GROUNDING SYSTEM
    1141000  ELECTRICAL SERVICE GROUND
    1142000  BUILDING STUCTURE GROUND
    1143000  LIGHTNING PROTECTION
      1143100   4  LIGHTNING PROTECTION SYS. GENERAL
        1143110   4  LIGHTNING PROTECTION SYS. GENERAL WIRING
      1143500   1  LIGHTNING PROTECTION SYS. ROD
        1143510   1  LIGHTNING PROTECTION SYS. GROUNDING ROD
    1144000  COMPUTER SYSTEM GROUND
    1145000  SPECIAL GROUND SYSTEM

1200000  SPECIAL INTERIOR ELECTRICAL SYSTEM
  1210000  SOUND SYSTEM
    1211000  TELEPHONE SYSTEM
      1211100   1  4-PIN RECEPTACLE
      1211200   4  TELEPHONE CABLE
    1212000  INTERCOMMUNICATION SYSTEM
    1213000  PUBLIC ADDRESS SYSTEM
    1214000  RADIO COMMUNICATION SYSTEM
    1215000  DOOR BELL
  1220000  ALARM SYSTEM
    1221000  FIRE ALARM SYSTEM
      1221100   1  MANUAL PULL STATION
      1221200   1  SMOKE DETECTOR
      1221300   1  FIRE ALARM BELL
      1221400   1  ANNUNCIATION PANEL
      1221500   1  HEAT DETECTOR
      1221600   1  FIRE ALARM CONT. PANEL
    1222000  INTRUDER DETECTION SYSTEM
    1223000  EQUIPMENT ALARM SYSTEM
  1230000  TELEVISION SYSTEM
```

Caces No : Unit of Measure : Description

```
  1232000  CLOSED CIRCUIT TV SYSTEM
  1233000  TV CABLE OUTLET
1240000  CONTROL SYSTEM
  1241000  ENERGY MANAGEMENT SYSTEM
  1242000  RADIO CONTROL SYSTEM
  1243000  LIGHT DIMMING PANEL
1250000  HOSPITAL SYSTEM
  1251000  NURSE CALL
  1252000  DOCTOR PAGING
  1253000  DOCTOR REGISTER
  1254000  GROUND DETECTION
  1255000  NARCOTICS ALARM
  1256000  OXYGEN ALARM
1260000  CLOCK & PROGRAM SYSTEM
  1261000  CLOCK AND PROGRAM SYSTEM
    1261100   1  TIME CONTROL CLOCK
1270000  ELECTRIC HEATING SYSTEM
  1271000  BASEBOARD HEATERS
  1272000  WALL & CEILING HEATERS
    1272100   1  WALL MOUNTED & RECESSED WITH FAN
    1272200   1  RADIANT SUSPENDED, COMMERCIAL
    1272300   1  INFRARED SUSPENDED, COMMERCIAL
  1273000  INDUSTRIAL HEATERS
    1273100   1  STANDARD SUSPENDED HEATER
    1273200   1  EXPLOSION PROOF INDUSTRIAL
  1274000  DUCT HEATERS
1280000  POWER GENERATING SYSTEM
  1281000  ENGINE GENERATOR SETS
    1281100   1  GENERATOR, GASOLINE POWERED
    1281200   1  GENERATOR, DIESEL
    1281300   1  GENERATOR, VAPOR GAS POWERED
    1281400   1  TURBINES
      1281410   1  GENERATOR, STEAM TURBINE
      1281420   1  GENERATOR, GAS TURBINE
    1281500   1  TRANSFER SWITCH
  1282000  UNINTERRUPTIBLE POWER SOURCE
    1282100   1  STATIC CHARGER, BATTERY
    1282200   1  MOTOR GENERATOR, BATTERY
  1283000  EMERGENCY BATTERY SYSTEM
    1283100   1  BATTERY, PRIMARY WET
    1283200   1  BATTERY, PRIMARY DRY
    1283300   1  BATTERY, SECONDARY WET
    1283400   1  BATTERY, SECONDARY DRY
```

APPENDIX B:

GEOGRAPHICAL LOCATION ADJUSTMENT FACTORS

State	Location	ACF Index
Alabama	State Average	.86
	Birmingham	.96
	Mobile	.86
	Montgomery	.76
	Anniston Army Depot	.81
	Huntsville	.88
	Fort McClellan	.80
	Redstone Arsenal	.88
	Fort Rucker	.80
Alaska	State Average	2.25
	Anchorage	1.92
	Delta Junction	2.70
	Fairbanks	2.13
	Adak	3.88
	Aleutian Islands	3.86
	Anchorage NSGA	1.92
	Barrow	4.18
	Burnt Mtn.	6.86
	Clear	3.10
	Eielson AFB	2.13
	Elmendorf AFB	1.92
	Galena	3.73
	Fort Greely	2.70
	Fort Richardson	1.92
	Fort Wainwright	2.13
Arizona	State Average	1.02
	Flagstaff	1.02
	Phoenix	.99
	Tucson	1.05
	Fort Huachuca	1.22
	Yuma Proving Ground	1.31
	Yuma	1.31
Arkansas	State Average	.89
	Pinebluff	.93
	Little Rock	.83
	Fort Smith	.92
	Fort Chaffee	.92
	Pine Bluff Arsenal	.93
California	State Average	1.21
	Los Angeles	1.20
	San Diego	1.18
	San Francisco	1.25
	Beale	1.28
	Bridgeport NWTC	1.27
	Castle	1.13
	Centerville Beach	1.32
	Desert Area	1.18
	Edwards AFB	1.30

State	Location	ACF Index
California (Cont'd)	El Centro	1.27
	George AFB	1.31
	Fort Hunter Liggett	1.29
	Fort Irwin	1.20
	Le Moore NAS	1.20
	March AFB	1.18
	Mather AFB	1.17
	McClellan AFB	1.17
	Monterey Area	1.23
	Presidio of Monterey	1.23
	Norton AFB	1.16
	Oakland Army Base	1.33
	Fort Ord	1.24
	Port Huenema Area	1.20
	Riverside	1.18
	Sacramento	1.15
	Sacramento Army Depot	1.15
	Presidio of San Francisco	1.25
	San Nicholas Island	2.59
	Sharpe Army Depot	1.13
	Sierra Army Depot	1.33
	Stockton	1.15
	Travis AFB	1.27
	Vandenburg AFB	1.38
Colorado	State Average	.98
	Colorado Springs	.94
	Denver	1.04
	Pueblo	.96
	Fort Carson	1.01
	Fitzsimmons AMC	1.06
	Pueblo Army Depot	.96
	Peterson AFB	.94
	Rocky Mountain Arsenal	1.06
Connecticut	State Average	1.13
	Bridgeport	1.16
	Hartford	1.10
	New London	1.14
Delaware	State Average	.99
	Dover	1.04
	Lewes	.98
	Milford	.96
	Lewes NF	1.04
	Dover AFB	1.04
District of Columbia	Washington	1.03
	Fort McNair	1.03
	Walter Reed AMC	1.03
Florida	State Average	.89
	Miami	.95
	Panama City	.92
	Tampa	.79
	Cape Canaveral	.96
	Cape Kennedy	.96

State	Location	ACF Index
Florida (Cont'd)	Gulf Coast	.85
	Homestead AFB	.88
	Homestead	.88
	Jacksonville A.	.85
	Key West NAS	1.08
	Orlando	.80
	Pensacola Area	.85
	McDill AFB	.77
	Eglin AFB	.77
	Tyndall AFB	.92
Georgia	State Average	.80
	Albany	.82
	Atlanta	.87
	Macon	.70
	Athens	.90
	Atlanta-Marietta	.93
	Fort Benning	.71
	Columbus	.71
	Fort Gillem	.87
	Fort Gordon	.94
	Kings Bay	.93
	Fort McPherson	.87
	Fort Stewart	.84
Hawaii	State Average	1.28
	Hawaii	1.29
	Honolulu	1.27
	Maui	1.29
	Alimanu	1.27
	Barbars Point NAS	1.34
	Fort Debussy	1.27
	EWA Beach Area	1.34
	Helemano	1.34
	Hickam Army Air Field	1.27
	Kaneohe MCAS	1.34
	Moanalua	1.27
	Pearl City	1.27
	Pearl Harbor	1.27
	Pohakuloa	1.32
	Schofield Barracks	1.27
	Fort Shafter	1.27
	Tripler AMC	1.27
	Wheeler Army Air Field	1.34
Idaho	State Average	1.11
	Boise	1.05
	Idaho Falls	1.08
	Mountain Home	1.19
	Mountain Home AFB	1.20
Illinois	State Average	1.03
	Belleville	.96
	Chicago	1.09
	Rock Island	1.03
	Rock Island Arsenal	1.06

State	Location	ACF Index
Illinois (Cont'd)	St. Louis Support Ctr	.96
	Savannah Army Depot	1.05
	Scott AFB	1.03
	Fort Sheridan	1.10
Indiana	State Average	.99
	Indianapolis	1.03
	Logansport	.99
	Madison	.94
	Fort Benjamin Harrison	1.07
	Crane	1.10
	Crane AAP	1.10
	Grissom AFB	1.06
	Indiana AAP	1.02
	Jefferson Proving Ground	.94
Iowa	State Average	1.02
	Burlington	1.04
	Cedar Rapids	.98
	Des Moines	1.05
	Iowa AAP	1.06
Kansas	State Average	.94
	Manhattan	.97
	Topeka	.96
	Wichita	.88
	Kansas AAP	.94
	Fort Leavenworth	.94
	Fort Riley	.97
	Sunflower AAP	.97
Kentucky	State Average	.96
	Bowling Green	.99
	Lexington	.96
	Louisville	.93
	Fort Campbell	.93
	Fort Knox	.99
	Lexington/Bluegrass Army Depot	1.06
	Louisville NAS	.93
Louisiana	State Average	.92
	Alexandria	.87
	New Orleans	.94
	Shreveport	.94
	Barksdale AFB	.94
	England AFB	.87
	Gulf Outport New Orleans	.94
	Louisiana AAP	.94
	Fort Polk	.94
Maine	State Average	.93
	Bangor	.85
	Caribou	.99
	Portland	.94
	Brunswick	.93
	Cutler	.98
	Northern Area	1.17
	Winter Harbor	.98

State	Location	ACF Index
Maryland	State Average	.97
	Baltimore	.95
	Fredrick	.94
	Lexington Park	1.01
	Aberdeen Proving Ground	.94
	Annapolis	1.03
	Fort Detrick	.94
	Harry Diamond Lab	1.00
	Fort Meade	.95
	Patuxent River Area	1.08
	Fort Ritchie	.90
Massachusetts	State Average	1.10
	Boston	1.13
	Fitchburg	1.08
	Springfield	1.08
	Army Mtls & Mech Research Ctr	1.13
	Fort Devens	1.15
	Natick Research & Development Ctr	1.13
	South Weymouth	1.13
Michigan	State Average	1.06
	Bay City	1.02
	Detroit	1.14
	Marquette	1.03
	Detroit Arsenal	1.14
	Northern Area	1.25
	Republic (Elfcom)	1.10
	Selfridge AFB	1.14
Minnesota	State Average	1.08
	Duluth	1.05
	Minneapolis	1.09
	St. Cloud	1.10
	Twin Cities AAP	1.09
Mississippi	State Average	.84
	Biloxi	.87
	Columbus	.81
	Jackson	.84
	Columbus AFB	.81
	Gulfport Area	.87
	Meridian	.92
Missouri	State Average	.92
	Kansas City	.92
	St. Louis	.99
	Rolla	.85
	Lake City AAP	.93
	Fort Leonard Wood	.91
Montana	State Average	1.15
	Billings	1.15
	Butte	1.18
	Great Falls	1.12
	Malmstrom AFB	1.12
Nebraska	State Average	1.03
	Grand Island	1.00

State	Location	ACF Index
Nebraska (Cont'd)	Lincoln	1.05
	Omaha	1.05
	Offutt AFB	1.05
Nevada	State Average	1.18
	Hawthorne	1.26
	Las Vegas	1.13
	Reno	1.15
	Fallon	1.28
	Hawthorne AAP	1.26
	Nellis AFB	1.13
New Hampshire	State Average	1.09
	Concord	1.06
	Nashua	1.06
	Portsmouth	1.14
	Cold Regions Lab	1.17
New Jersey	State Average	1.08
	Newark	1.11
	Red Bank	1.08
	Trenton	1.06
	Bayonne	1.10
	Bayonne Mil Ocean Term	1.09
	Fort Dix	1.03
	Earle	1.10
	Lakehurst	1.05
	Fort Monmouth	1.09
	Picatinny Arsenal	1.20
New Mexico	State Average	1.03
	Alamogordo	.99
	Albuquerque	1.03
	Gallup	1.06
	Holloman AFB	1.05
	Kirtland AFB	1.03
	White Sands Missile Range	1.09
	Fort Wingate	1.06
New York	State Average	1.12
	Albany	1.07
	New York City	1.24
	Syracuse	1.05
	Brooklyn	1.24
	Fort Drum	1.18
	Fort Hamilton	1.24
	Seneca Army Depot	1.15
	U.S. Military Academy	1.17
	Watervliet Arsenal	1.07
North Carolina	State Average	.76
	Fayetteville	.76
	Greensboro	.75
	Wilmington	.78
	Fort Bragg	.76
	Camp Lejeune Area	.86
	Cherry Point	.86
	Goldsboro	.77

State	Location	ACF Index
North Carolina (Cont'd)	Pope AFB	.82
	Seymour AFB	.77
	Sunny Point Mil Ocean Term	.78
North Dakota	State Average	1.03
	Bismarck	1.02
	Grand Forks	.98
	Minot	1.10
	Grand Forks AFB	.98
	Stanley R. Hicklesen CPX	1.03
	Minot AFB	1.12
Ohio	State Average	1.00
	Columbus	1.03
	Dayton	.98
	Youngstown	.99
	Cleveland	1.14
	Wright-Patterson AFB	.98
Oklahoma	State Average	.93
	Lawton	.90
	McAlester	.91
	Oklahoma City	.98
	Altus AFB	.94
	Enid	1.01
	McAlester AAP	.91
	Fort Sill	.90
Oregon	State Average	1.05
	Pendleton	1.08
	Portland	1.07
	Salem	.99
	Charleston	1.11
	Coos Head	1.08
	Umatilla Army Depot	1.18
Pennsylvania	State Average	1.00
	Harrisburg	.91
	Philadelphia	1.05
	Pittsburgh	1.04
	Carlisle Barracks	.93
	New Cumberland Army Depot	.91
	Fort Indiantown Gap	1.07
	Letterkenny Army Depot	1.07
	Mechanicsburg Area	.91
	Tobyhanna Army Depot	1.14
	Warminster Area	1.04
Rhode Island	State Average	1.11
	Bristol	1.13
	Newport	1.11
	Providence	1.10
	Davisville	1.17
South Carolina	State Average	.82
	Charleston	.81
	Columbia	.82
	Myrtle Beach	.84
	Beaufort Area	.89

State	Location	ACF Index
South Carolina (Cont'd)	Charleston AFB	.81
	Fort Jackson	.82
	Sumter	.80
South Dakota	State Average	.95
	Aberdeen	.95
	Sioux Falls	.94
	Rapid City	.96
	Ellsworth AFB	.98
Tennessee	State Average	.84
	Chattanooga	.86
	Kingsport	.72
	Memphis	.95
	Arnold AFB	.90
	Milan AAP	.98
	Holston AAP	.71
Texas	State Average	.85
	San Angelo	.76
	San Antonio	.86
	Fort Worth	.93
	Fort Bliss	.96
	Carswell AFB	.93
	Chase Field - Beeville	.97
	Corpus Christi Army Depot	.92
	Corpus Christi	.92
	Dallas	.93
	Dyess AFB	.94
	Fort Hood	.89
	Kingsville	.99
	Red River Army Depot	.78
	Fort Sam Houston	.86
	William Beaumont AMC	.96
	Bergstrom AFB	.95
	Brooks AFB	.86
	Randolph AFB	.86
	Kelly AFB	.86
	Lackland AFB	.86
Utah	State Average	1.03
	Ogden	1.05
	Salt Lake City	1.00
	Tooele	1.06
	Dugway Proving Ground	1.03
	Hill AFB	1.07
	Tooele Army Depot	1.05
Vermont	State Average	.99
	Burlington	1.00
	Montpelier	1.00
	Rutland	.96
Virginia	State Average	.95
	Norfolk	.95
	Radford	.95
	Richmond	.94
	Arlington	1.04

State	Location	ACF Index
Virginia (Cont'd)	Arlington Hall Station	1.04
	Arlington National Cemetery	1.04
	Fort Belvoir	1.04
	Cameron Station	1.04
	Dahlgren	1.10
	Fort Eustis	.96
	Humphreys Engineer Center	1.03
	Fort A. P. Hill	.92
	Fort Lee	.93
	Fort Monroe	.94
	Fort Myer	1.03
	Norfolk-Newport News Area	.95
	Fort Pickett	.98
	Quantico	1.03
	Nadford AAP	1.02
	Port Story	.95
	Vint Hill Farms Station	1.08
Washington	State Average	1.09
	Spokane	1.08
	Tacoma	1.07
	Yakima	1.11
	Fairchild AFB	1.13
	Jim Creek	1.34
	Fort Lewis	1.07
	Pacific Beach	1.27
	Puget Sound Area	1.15
	Seattle Area	1.12
	Widbey Island	1.12
	Yakima Firing Center	1.18
West Virginia	State Average	.95
	Bluefield	.92
	Clarksburg	.95
	Charleston	.99
	Sugar Grove	1.15
Wisconsin	State Average	1.06
	LaCrosse	1.04
	Madison	1.02
	Milwaukee	1.13
	Badger AAP	1.06
	Clam Lake	1.20
	Fort McCoy	1.11
Wyoming	State Average	1.08
	Casper	1.07
	Cheyenne	1.10
	Laramie	1.08
	F. E. Warren AFB	1.10

APPENDIX C:

TASK DATA BASE DETAILED RESOURCE TABLES

TASK DATA FORM

Task Code: 1118201

Component: CABLE,THRMSETT., <15,000V. System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE CABLE
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 50.00 A: 100.00 L: 200.00
Persons per Team: 2 Task Duration: 3.6813 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.SHUT OFF POWER,LATER TURN ON	0.014100
2.REMOVE COVER PLATE	0.046600
3.REMOVE SWITCH OR TERMINAL	0.008200
4.PULL WIRE SPLICES OUT	0.006000
5.REMOVE TAPE FROM SPLICES IN BOX	0.024900
6.CUT CONDUCTOR LEADS IN BOX	0.019600
7.CUT CABLE ADJACENT TO BOX	0.009200
8.REMOVE CABLE END FORM CONNECTOR	0.031700
9.REMOVE CABLES AND STAPLES	1.613200
10.REMOVE EXISTING TERMINAL BOXES	0.019800
11.PUSH RETAPED LEADS BACK IN BOX	0.006000
12.INSTALL COVER PLATE TO BOX	0.012900
13.LADDER TIME,ADDITIONAL,PER BOX	1.414000
14.INSTALL BOXES TO WOOD SURFACE	0.137500
15.INSTALL FOOTAGE OF CABLE	1.259500
16.REMOVE EXISTING BOX COVER PLATE	0.012900
17.REMOVE KNOCKOUT PLUGS IN BOXES	0.122200
18.FASTEN CABLE TO BOXES	0.897000
19.MOVE EXISTING WIRE SPLICE ASIDE	0.008300

Material Resources

Description	Quantity	Unit Cost
WIRE(#12)	1000 FT	0.0800
STAPLES	200	0.0200
BOX	10	1.8000
		102.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.663600	1.699080	7.362680
Material	Cost $	102.000000		102.000000
Equipment	Hours			3.681340

Components In This Task: 1118200

TASK DATA FORM

Task Code: 1118301

Component: CABLE,SHIELDED,<15,000V. System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE CABLE
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 50.00 A: 100.00 L: 200.00
Persons per Team: 2 Task Duration: 3.6814 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.SHUT OFF POWER,LATER TURN ON	0.014100
2.REMOVE COVER PLATE	0.046600
3.REMOVE SWITCH OR TERMINAL	0.008200
4.PULL WIRE SPLICES OUT	0.006000
5.REMOVE TAPE FROM SPLICES IN BOX	0.024900
6.CUT CONDUCTOR LEADS IN BOX	0.019600
7.CUT CABLE ADJACENT TO BOX	0.009300
8.REMOVE CABLE END FROM CONNECTOR	0.031700
9.REMOVE CABLES AND STAPLES	1.613200
10.REMOVE EXISTING TERMINAL BOXES	0.019800
11.PUSH RETAPED LEADS BACK IN BOX	0.006000
12.INSTALL COVER PLATE TO BOX	0.012900
13.LADDER TIME,ADDITIONAL,PER BOX	1.414000
14.INSTALL BOXES TO WOOD SURFACE	0.137500
15.INSTALL FOOTAGE OF CABLE	1.259500
16.REMOVE EXISTING BOX COVER PLATE	0.012900
17.REMOVE KNOCKOUT PLUGS IN BOXES	0.122200
18.FASTEN CABLE TO BOXES	0.897000
19.MOVE EXISTING WIRE SPLICE ASIDE	0.008300

Material Resources

Description	Quantity	Unit Cost
WIRE(#6)	1000 FT	0.3000
STAPLES	200	0.0300
BOX	10	1.8000
		324.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.663700	1.699110	7.362810
Material	Cost $	324.000000		324.000000
Equipment	Hours			3.681405

Components In This Task: 1118300

TASK DATA FORM

Task Code: 1118401

Component: CABLE,FLEX. METALIC <600V. System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE CABLE
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 30.00 A: 60.00 L: 120.00
Persons per Team: 2 Task Duration: 28.1060 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL BOX COVER	2.580000
2.REMOVE BOX	3.760000
3.CUT/PULL GIVEN FOOTAGE #8 OUT	0.750000
4.REMOVE CONDUIT FROM CONNECTOR	8.820000
5.REMOVE CLIPS OR CLAMPS	3.960000
6.REMOVE AND REINSTALL BOX COVER	2.580000
7.INSTALL BOX TO WOOD SURFACE	3.790000
8.REMOVE KNOCKOUT PLUGS	1.220000
9.INSTALL CONNECTORS TO BOXES	3.240000
10.MEASURE,MARK,CUT,DEBURR CONDUIT	4.710000
11.INSTALL CONDUIT TO CONNECTORS	5.730000
12.INSTALL ONE HOLE CLAMP	2.100000

Material Resources

Description	Quantity	Unit Cost
WIRE(#12)	1000 FT	0.5400
STAPLES	200	0.0200
BOX	10	1.8000
		562.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	43.240000	12.972000	56.212000
Material	Cost $	562.000000		562.000000
Equipment	Hours			28.106000

Components In This Task: 1118400

TASK DATA FORM

Task Code: 1118501

Component: BRANCH WIRING, < 600V. System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE BRANCH WIRING
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 25.00 A: 50.00 L: 100.00
Persons per Team: 2 Task Duration: 5.1765 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.SHUT OFF POWER,LATER TURN ON	0.014100
2.REMOVE COVER PLATE	0.046600
3.REMOVE SWITCH OR TERMINAL	0.008200
4.PULL WIRE SPLICES OUT	0.006000
5.REMOVE TAPE FROM SPLICES IN BOX	0.024900
6.CUT CONDUCTOR LEADS IN BOX	0.019600
7.CUT CABLE ADJACENT TO BOX	0.009300
8.REMOVE CABLE END FROM CONNECTOR	0.031700
9.REMOVE CABLES AND STAPLES	1.613200
10.REMOVE EXISTING TERMINAL BOXES	0.019800
11.PUSH RETAPED LEADS BACK IN BOX	0.006000
12.INSTALL COVER PLATE TO BOX	0.012900
13.LADDER TIME,ADDITIONAL,PER BOX	1.414000
14.MAKE BOX CUT-OUT HOLES	0.648700
15.REMOVE EXISTING BOX COVER PLATE	0.012900
16.REMOVE KNOCKOUT PLUGS IN BOXES	0.122200
17.INSTALL FOOTAGE OF CABLE	2.594000
18.FASTEN CABLE TO NEW BOXES	0.897000
19.MOVE EXISTING WIRE SPLICES	0.083000
20.INSTALL BOXES IN CUT-OUT HOLES	0.379800

Material Resources

Description	Quantity	Unit Cost
WIRE(#12)	1000 FT	0.1200
STAPLES	200	0.0200
BOX	10	1.8000
		142.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	7.963900	2.389170	10.353070
Material	Cost $	142.000000		142.000000
Equipment	Hours			5.176535

Components In This Task: 1118500

TASK DATA FORM

Task Code: 1118601

Component: BRANCH WIRING, > 600V. System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE BRANCH WIRING
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 60.00 A: 130.00 L: 250.00
Persons per Team: 2 Task Duration: 4.3430 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.CUT /PULL WIRES #8 OR LESS OUT	0.710400
2.PULL #8 OR LESS WIRES THROUGH	3.446900
3.CUT, FORM AND ALIGN 4 WIRES	0.318400
4.SPLICE,SOLDER,INSULATE 2 WIRES	2.205900

Material Resources

Description	Quantity	Unit Cost
WIRE(#12)	1000 FT	0.0300
BOX	10	1.8000
		0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	6.681600	2.004480	8.686080
Material	Cost $	48.000000		48.000000
Equipment	Hours			4.343040

Components In This Task: 1118600

TASK DATA FORM

Task Code: 1118701

Component: BUSS DUCT System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: LINEAR FEET Frequency of Occurrence: H: 3.00 A: 5.00 L: 15.00
Persons per Team: 2 Task Duration: 0.0065 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TIGHTEN CONNECTIONS	0.010000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.010000	0.003000	0.013000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.006500

Components In This Task: 1118700

TASK DATA FORM

Task Code: 1118702

Component: BUSS DUCT System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: LINEAR FEET Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.0026 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT,CLEAN,DISCONNECTS,CHECK	0.002000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.002000	0.000600	0.002600
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.002600

Components In This Task: 1118700

TASK DATA FORM

Task Code: 1118703

Component: BUSS DUCT System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE BUSS DUCT
Unit of Measure: LINEAR FEET Frequency of Occurrence: H: 10.00 A: 20.00 L: 60.00
Persons per Team: 2 Task Duration: 0.1521 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE/REINSTALL SUPPLY BOX	0.041200
2.CUT WIRES AND TAPE ENDS	0.030600
3.CUT,PULL,COIL #8 OR SMALLER OUT	0.001600
4.REMOVE CONNECTORS	0.004900
5.REMOVE LENGTHS OF WIREWAY/BOX	0.001900
6.REMOVE LENGTHS OF WIREWAY/SEC.	0.001900
7.REMOVE BUSHINGS	0.000400
8.REMOVE ELBOW COVERS	0.001300
9.REMOVE ELBOW BASE PLATES	0.001100
10.REMOVE JUNCTION,SWITCH,UTILITY	0.003700
11.LADDER TIME CONNECTOR/BOX	0.001400
12.LADDER TIME CONNECTOR/BOX/SECT	0.001400
13.REMOVE/REINSTALL SUPPLY BOX	0.042200
14.REMOVE KNOCKOUT PLUGS OLD/NEW	0.018000
15.INSTALL CONNECTORS TO BOXES	0.008300
16.MOUNT JUNCTION,SWITCH,UTILITY	0.003700
17.CUT/DEBURR LENGTH OF WIREWAY	0.004700
18.INSTALL ELBOW BASE PLATE	0.002100
19.INSTALL ALL SECTIONS OF WIREWAY	0.060600
20.INSTALL 2 BUSHINGS FOR EACH BOX	0.000400
21.INSTALL BOX COVER PLATES	0.001300
22.INSTALL ELBOW COVER FOR ALL BOX	0.001300

Material Resources

Description	Quantity	Unit Cost
BUSS DUCT	1 FT	32.5000
HANGERS	.5	4.5000
		34.7500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.234000	0.070200	0.304200
Material	Cost $	34.750000		34.750000
Equipment	Hours			0.152100

Components In This Task: 1118700

TASK DATA FORM

Task Code: 1118801

Component: CONDUIT EMT System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE EMT CONDUIT
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 150.00 A: 200.00 L: 250.00
Persons per Team: 2 Task Duration: 14.4913 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REM./REINSTALL SUPPLY BOX COVER	0.025800
2.CUT WIRES AND TAPE ENDS	0.025400
3.CUT,PULL & COIL WIRES	1.347200
4.REMOVE 2-HOLE STRAPS FROM WOOD	4.356000
5.REMOVE EMT FROM BOX ENDS	0.822400
6.REMOVE COUPLINGS OR CONNECTORS	2.741000
7.REMOVE JUNCTION,OUTLET/SW.BOXES	0.376000
8.LADDER TIME PER BOX FOR EA.BOX	1.751300
9.REMOVE EXISTING BOX COVER PLATE	0.012900
10.MOVE EXISTING SPLICED WIRES	0.008300
11.REMOVE KNOCKOUT IN EXISTING BOX	0.007400
12.INSTALL NEW BOXES TO WOOD SURF.	0.379800
13.REMOVE KNOCKOUTS IN NEW BOXES	0.122200
14.INSTALL LENGTH OF EMT & CONNECT	0.024900
15.MAKE OFFSET IN EMT FOR EA.N.BOX	0.335600
16.MEASURE,MARK,CUT & REAM LENGTH	1.404400
17.INSTALL CONNECTOR TO NEW BOXES	0.162000
18.INSTALL 10-FT.LENGTHS OF EMT	2.869000
19.INSTALL COUPLINGS TO EMT	1.782000
20.INSTALL LENGTH OF EMT TO 2 CON.	0.573800
21.INSTALL EMT TO WOOD SURFACE	3.025000
22.INSTALL COVER PLATES ON NEW BOX	0.141900

Material Resources

Description	Quantity	Unit Cost
CONDUIT (1")	1000 FT	0.3400
HANGERS	100	8.5000
BOX	10	1.8000
CONN	10	0.2500
		1210.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	22.294300	6.688290	28.982590
Material	Cost $	1210.500000		1210.500000
Equipment	Hours			14.491295

Components In This Task: 1118800

TASK DATA FORM

Task Code: 1119101

Component: METERS,DARS.,GALVANOMETER System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 4.9998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR METER	3.846000

Material Resources

Description	Quantity	Unit Cost
MOVEMENT	1	550.0000
		550.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	3.846000	1.153800	4.999800
Material	Cost $	550.000000		550.000000
Equipment	Hours			4.999800

Components In This Task: 1119100

TASK DATA FORM

Task Code: 1119102

Component: METERS,DARS.,GALVANOMETER System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: REPLACE REPLACE METER
Unit of Measure: COUNT Frequency of Occurrence: H: 15.00 A: 20.00 L: 25.00
Persons per Team: 1 Task Duration: 0.9750 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE METER	0.750000

Material Resources

Description	Quantity	Unit Cost
METER	1	1401.0000
		1401.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.750000	0.225000	0.975000
Material	Cost $	1401.000000		1401.000000
Equipment	Hours			0.975000

Components In This Task: 1119100

TASK DATA FORM

Task Code: 1119301

Component: INVERTER System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 1.00 L: 2.00
Persons per Team: 2 Task Duration: 2.4700 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR INVERTER COMPONENT	3.800000

Material Resources

Description	Quantity	Unit Cost
COMPONENT	1	3.0000
		3.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	3.800000	1.140000	4.940000
Material	Cost $	3.000000		3.000000
Equipment	Hours			2.470000

Components In This Task: 1119300

TASK DATA FORM

Task Code: 1119302

Component: INVERTER System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.25 A: 0.25 L: 0.25
Persons per Team: 1 Task Duration: 1.3000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK CONNECT.CONTRLS & RELAYS	1.000000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.000000	0.300000	1.300000
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.300000

Components In This Task: 1119300

TASK DATA FORM

Task Code: 1119303

Component: INVERTER System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: REPLACE REPLACE INVERTER
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 2 Task Duration: 1.0498 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE INVERTER	1.615000

Material Resources

Description	Quantity	Unit Cost
INVERTER	1	1615.0000
		1615.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.484500	2.099500
Material	Cost $	1615.000000		1615.000000
Equipment	Hours			1.049750

Components In This Task: 1119300

TASK DATA FORM

Task Code: 1119401

Component: RECTIFIER, < 600V. System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 2.00 L: 4.00
Persons per Team: 1 Task Duration: 3.1200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR RECTIFIER	2.400000

Material Resources

Description	Quantity	Unit Cost
COMPONENT	1	161.0000
		161.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.400000	0.720000	3.120000
Material	Cost $	161.000000		161.000000
Equipment	Hours			3.120000

Components In This Task: 1119400

TASK DATA FORM

Task Code: 1119402

Component: RECTIFIER, < 600V. System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 1.6900 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK CONNECT.CONTRL & RELAYS	1.300000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.300000	0.390000	1.690000
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.690000

Components In This Task: 1119400

TASK DATA FORM

Task Code: 1119401

Component: RECTIFIER, < 600V. System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 2.00 L: 4.00
Persons per Team: 1 Task Duration: 3.1200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR RECTIFIER	2.400000

Material Resources

Description	Quantity	Unit Cost
COMPONENT	1	161.0000
		161.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.400000	0.720000	3.120000
Material	Cost $	161.000000		161.000000
Equipment	Hours			3.120000

Components In This Task: 1119400

TASK DATA FORM

Task Code: 1119402

Component: RECTIFIER, < 600V. System: SERVICE AND DIST. Subsystem: SPECIAL SYSTEMS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 1.6900 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.CHECK CONNECT.CONTRL & RELAYS	1.300000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.300000	0.390000	1.690000
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.690000

Components In This Task: 1119400

TASK DATA FORM

Task Code: 1122102

Component: SAFETY SWITCH, ENCLOSED System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.7930 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & CLEAN SAFETY SWITCH	0.610000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.610000	0.183000	0.793000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.793000

Components In This Task: 1122100

TASK DATA FORM

Task Code: 1122103

Component: SAFETY SWITCH, ENCLOSED System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE SAFETY SWITCH
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 2 Task Duration: 0.2827 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.DISCONNECT CONDUCT FROM TERMIN.	0.028800
2.LOOSEN LOCKNUTS ON CONDUITS	0.017400
3.REMOVE LOCKNUT-CONDUIT ENDS	0.021800
4.STRAIGHTEN CIRCUIT WIRES	0.033300
5.REMOVE 1 HOLE CLAMP OR CLIP	0.021800
6.REMOVE SAFETY SWITCH INTACT	0.040500
7.MOUNT SAFETY SWITCH ON WOOD	0.134900
8.CUT,FORM & ALIGN CIRCUIT WIRES	0.111600
9.INSTALL PLUG OR CARTRIDGE FUSES	0.010700
10.CHECK OPERATION OF SWITCH	0.014100

Material Resources

Description	Quantity	Unit Cost
SAFETY SW.	1	38.9700
		38.9700

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.434900	0.130470	0.565370
Material	Cost $	38.970000		38.970000
Equipment	Hours			0.282685

Components In This Task: 1122100

TASK DATA FORM

Task Code: 1122311

Component: CIR. BKR.,M.C.< 599V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.8970 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TIGHTEN CONNECTIONS	0.690000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.690000	0.207000	0.897000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.897000

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122312

Component: CIR. BKR.,M.C.< 599V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT, TIGHTEN WIRING	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122313

Component: CIR. BKR.,M.C.< 599V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 125.00 A: 250.00 L: 400.00
Persons per Team: 1 Task Duration: 0.7505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.DISCONNECT CONDUCTORS FROM TERM	0.028800
3.REMOVE BREAKER UNIT FROM CASING	0.049000
4.LOOSEN LOCKNUTS ON CONDUIT	0.017400
5.REMOVE LOCKNUTS FROM CON.CASING	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE 1 HOLE CLAIM OR CLIP	0.021800
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,FORM,ALIGN CONNECT WIRES	0.116000
13.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	200.0000
		200.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577300	0.173190	0.750490
Material	Cost $	200.000000		200.000000
Equipment	Hours			0.750490

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122321

Component: CIR. BKR.,M.C.< 599V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.8970 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TIGHTEN CONNECTIONS	0.690000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.690000	0.207000	0.897000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.897000

Components In This Task: 1122310 1122320

TASK DATA FORM

Task Code: 1112001

Component: OVERHEAD SERVICE, SPLICE System: SERVICE AND DIST. Subsystem: OVERHEAD SERVICE FEEDER
Task Description: M/R REPAIR CABLE SPLICE
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 6.00 A: 12.00 L: 36.00
Persons per Team: 1 Task Duration: 7.5750 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.SPLICE CABLE,POLYTHYLENE JACKET	5.826900

Material Resources

Description	Quantity	Unit Cost
TAPE	10 FT	0.1000
		1.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.826900	1.748070	7.574970
Material	Cost $	1.000000		1.000000
Equipment	Hours			7.574970

Components In This Task: 1112000

TASK DATA FORM

Task Code: 1112002

Component: OVERHEAD SERVICE, SPLICE System: SERVICE AND DIST. Subsystem: OVERHEAD SERVICE FEEDER
Task Description: PM CABLE INSPECTION
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 5.00 A: 5.00 L: 5.00
Persons per Team: 1 Task Duration: 0.6500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK CABLES FOR DAMAGE	0.500000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.500000	0.150000	0.650000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.650000

Components In This Task: 1112000

TASK DATA FORM

Task Code: 1112003

Component: OVERHEAD SERVICE, SPLICE System: SERVICE AND DIST. Subsystem: OVERHEAD SERVICE FEEDER
Task Description: REPLACE REPLACE SERVICE CABLE
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 15.00 A: 30.00 L: 90.00
Persons per Team: 2 Task Duration: 10.9579 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE CLIMBING GEAR,CLIMB UP/D	0.375500
2.CLIMB UP/DOWN THRU.OBSTRUC.AREA	0.013700
3.CHANGE TO RUBBER GLOVES/SLEEVES	0.044100
4.INSTALL/REMOVE 6 RUBBER HOSE	0.147100
5.REMOVE 3 CONDUCTORS FROM TERMI.	0.730900
6.REMOVE TIE WIRE FROM INSULATORS	0.110400
7.SET REEL JACKS & POSITION REEL	0.374300
8.REEL IN CONDUCTOR MANUALLY	0.532800
9.LOAD/UNLOAD HEAVY REELS OF COND	1.178000
10.MATERIAL HANDLING (EMPTY REELS)	0.069100
11.LOAD/UNLOAD PARTIAL REEL	4.559400
12.PULL OUT CONDUCTOR & REEVE	0.916400
13.PULL OUT 3 CONDUCTORS MANUALLY	0.532800
14.RAISE CONDUCTORS OVER X-ARM	2.720600
15.INSTALL 3 CONDUCTORS AT TERMN.	0.730900
16.INSTALL CONDUCTORS TO INSULAT.	0.481300
17.TAKE UP SLACK IN 3 CONDUCTORS	0.566500
18.INSTALL/REMOVE SAG GAUGE	0.519500
19.INSTALL 3 CONDUCTORS TO INSULA.	1.431400
20.MAKE UP & INSTALL 3 CONNT.JUMP.	0.755900
21.RAISE 2 BUNDLES MATERIAL	0.033200
22.MATERIAL HANDLING	0.034500

Material Resources

Description	Quantity	Unit Cost
CABLE	3000 FT	0.1380
		414.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	16.858300	5.057490	21.915790
Material	Cost $	414.000000		414.000000
Equipment	Hours			10.957895

Components In This Task: 1112000

TASK DATA FORM

Task Code: 1113101

Component: SWITCHGEAR, MAINFR.,1200a. System: SERVICE AND DIST. Subsystem: MAIN PROTECTION EQUIP.
Task Description: M/R REPAIR SWITCHGEAR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 3.00 A: 5.00 L: 10.00
Persons per Team: 1 Task Duration: 6.7002 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE RELAY	5.154000

Material Resources

Description	Quantity	Unit Cost
RELAY	1	607.0000
		607.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.154000	1.546200	6.700200
Material	Cost $	607.000000		607.000000
Equipment	Hours			6.700200

Components In This Task: 1113100

TASK DATA FORM

Task Code: 1113102

Component: SWITCHGEAR, MAINFR.,1200a. System: SERVICE AND DIST. Subsystem: MAIN PROTECTION EQUIP.
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 0.50 A: 1.00 L: 2.00
Persons per Team: 1 Task Duration: 0.7800 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK & RETIGHTEN CONNECTIONS	0.600000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.600000	0.180000	0.780000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.780000

Components In This Task: 1113100

TASK DATA FORM

Task Code: 1113103

Component: SWITCHGEAR, MAINFR.,1200a. System: SERVICE AND DIST. Subsystem: MAIN PROTECTION EQUIP.
Task Description: REPLACE REPLACE SWITCHGEAR 1200 AMP
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 3 Task Duration: 0.6338 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER (SIX SCREWS)	0.035400
2.DISCONNECT LOAD CONDUCTORS	0.014500
3.REMOVE LINE CONDUCTS.FROM TERM.	0.048000
4.REMOVE LOCK NUTS FROM CONDU.END	0.008900
5.REMOVE BUSHING FROM CONDUIT END	0.010900
6.LOOSEN NUTS ON COND.AT CASING	0.006700
7.LOOSEN NUTS ON COND. AT CASING	0.006700
8.STRAIGHTEN WIRES (LINE SIDE)	0.024100
9.STRAIGHTEN WIRES (LOAD SIDE)	0.085000
10.REMOVE 40 LB.OR HEAVIER BOARD	0.040500
11.MOUNT PANEL BOARD ON WOOD SURF.	0.930300
12.CUT,SEPARATE FORM & ALIGN LEADS	0.085100
13.INSTALL BOLT TYPE CONNECTORS	0.089900
14.CUT,SEPARATE, FORM, ALIGN WIRES	0.058000
15.INSTALL PLUG/CARTRIDGE TY.FUSES	0.004600
16.LOCATE & TEST CIRCUIT	0.014100

Material Resources

Description	Quantity	Unit Cost
SWITCHGEAR	1	1243.5000
		1243.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.462700	0.438810	1.901510
Material	Cost $	1243.500000		1243.500000
Equipment	Hours			0.633837

Components In This Task: 1113100

TASK DATA FORM

Task Code: 1113201

Component: FUSES System: SERVICE AND DIST. Subsystem: MAIN PROTECTION EQUIP.
Task Description: REPLACE REPLACE FUSE
Unit of Measure: COUNT Frequency of Occurrence: H: 25.00 A: 50.00 L: 100.00
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE FUSE.	0.310000

Material Resources

Description	Quantity	Unit Cost
FUSE	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	250.000000		250.000000
Equipment	Hours			0.403000

Components In This Task: 1113200

TASK DATA FORM

Task Code: 1114101

Component: TRANS.,LIQUID FILLED >600V System: SERVICE AND DIST. Subsystem: PRIMARY TRANSFORMERS
Task Description: M/R REPAIR TRANSFORMER
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 3.9000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE PRESS. RELAY	3.000000

Material Resources

Description	Quantity	Unit Cost
PRESS RELAY	1	1785.0000
		1785.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	3.000000	0.900000	3.900000
Material	Cost $	1785.000000		1785.000000
Equipment	Hours			3.900000

Components In This Task: 1114100

TASK DATA FORM

Task Code: 1114102

Component: TRANS.,LIQUID FILLED >600V System: SERVICE AND DIST. Subsystem: PRIMARY TRANSFORMERS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION.
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.3845 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TEST LAP ENERGIZED TRANSFORME	0.295800

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.295800	0.088740	0.384540
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.384540

Components In This Task: 1114100

TASK DATA FORM

Task Code: 1114103

Component: TRANS.,LIQUID FILLED >600V System: SERVICE AND DIST. Subsystem: PRIMARY TRANSFORMERS
Task Description: REPLACE REPLACE TRANSFORMER
Unit of Measure: COUNT Frequency of Occurrence: H: 15.00 A: 30.00 L: 60.00
Persons per Team: 3 Task Duration: 5.3300 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TRANSFORMER,	12.300000

Material Resources

Description	Quantity	Unit Cost
TRANSFORMER	1	16328.0000
		16328.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	12.300000	3.690000	15.990000
Material	Cost $	16328.000000		16328.000000
Equipment	Hours			5.330000

Components In This Task: 1114100

TASK DATA FORM

Task Code: 1114201

Component: TRANS.,DRY, > 15,000V. System: SERVICE AND DIST. Subsystem: PRIMARY TRANSFORMERS
Task Description: M/R REPAIR TRANSFORMER
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 30.00
Persons per Team: 1 Task Duration: 1.9500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR TERMINAL	1.500000

Material Resources

Description	Quantity	Unit Cost
TERMINAL	1	25.0000
		25.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.500000	0.450000	1.950000
Material	Cost $	25.000000		25.000000
Equipment	Hours			1.950000

Components In This Task: 1114200

TASK DATA FORM

Task Code: 1114202

Component: TRANS.,DRY, > 15,000V. System: SERVICE AND DIST. Subsystem: PRIMARY TRANSFORMERS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION.
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.3845 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.TEST ENERGIZED TRANSFORMER	0.295800

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.295800	0.088740	0.384540
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.384540

Components In This Task: 1114200

TASK DATA FORM

Task Code: 1114203

Component: TRANS.,DRY, > 15,000V. System: SERVICE AND DIST. Subsystem: PRIMARY TRANSFORMERS
Task Description: REPLACE REPLACE TRANSFORMER
Unit of Measure: COUNT Frequency of Occurrence: H: 7.50 A: 30.00 L: 60.00
Persons per Team: 3 Task Duration: 10.3133 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TRANSFORMER	23.800000

Material Resources

Description	Quantity	Unit Cost
TRANSFORMER	1	19742.0000
		19742.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	23.800000	7.140000	30.940000
Material	Cost $	19742.000000		19742.000000
Equipment	Hours			10.313333

Components In This Task: 1114200

TASK DATA FORM

Task Code: 1115101

Component: SWITCHGEAR,INDOOR, < 600V. System: SERVICE AND DIST. Subsystem: POWER PROTECTION EQUIP.
Task Description: M/R REPAIR SWITCHGEAR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.1040 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CIRCUIT BREAKER (5%)	0.080000

Material Resources

Description	Quantity	Unit Cost
CIR.BREAKER	1	3.2500
		3.2500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.080000	0.024000	0.104000
Material	Cost $	3.250000		3.250000
Equipment	Hours			0.104000

Components In This Task: 1115100

TASK DATA FORM

Task Code: 1115102

Component: SWITCHGEAR,INDOOR, < 600V. System: SERVICE AND DIST. Subsystem: POWER PROTECTION EQUIP.
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 2.00 A: 3.00 L: 4.00
Persons per Team: 1 Task Duration: 0.0130 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT AND CLEAN PANEL	0.010000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.010000	0.003000	0.013000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.013000

Components In This Task: 1115100

TASK DATA FORM

Task Code: 1115103

Component: SWITCHGEAR,INDOOR, < 600V. System: SERVICE AND DIST. Subsystem: POWER PROTECTION EQUIP.
Task Description: REPLACE REPLACE SWITCHGEAR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 25.00 A: 30.00 L: 35.00
Persons per Team: 1 Task Duration: 1.1248 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER (SIX SCREWS)	0.035400
2.DISCONNECT LEAD CONDUCTORS	0.014500
3.REMOVE LINE CONDUCTS.FROM TERM.	0.036000
4.REMOVE LOCKNUTS FROM CONDU.BOX	0.008900
5.REMOVE BUSHING FROM CONDUIT END	0.010900
6.LOOSEN NUTS ON CONDUIT AT CAS.	0.006900
7.LOOSEN NUTS ON CONDUIT CASING	0.006900
8.STRAIGHTEN WIRES (LINE SIDE)	0.024100
9.STRAIGHTEN WIRES,(LOAD SIDE)	0.032900
10.REMOVE 40 LB.OR HEAVIER . BOARD	0.040500
11.MOUNT PANEL BOARD ON WOOD SURF.	0.527800
12.CUT,SEPARATE FORM & ALIGN LEAD	0.033000
13.INSTALL SOLT-TYPE CONNECTORS	0.067500
14.CUT,SEPARATE,FORM,ALIGN WIRES	0.005900
15.LOCATE & TEST CIRCUITS	0.014100

Material Resources

Description	Quantity	Unit Cost
SWITCHGEAR	1	115.7500
		115.7500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.865200	0.259560	1.124760
Material	Cost $	115.750000		115.750000
Equipment	Hours			1.124760

Components In This Task: 1115100

TASK DATA FORM

Task Code: 1115201

Component: SWITCHGEAR,INDOOR, > 600V. System: SERVICE AND DIST. Subsystem: POWER PROTECTION EQUIP.
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.1040 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE FUSE (5%)	0.080000

Material Resources

Description	Quantity	Unit Cost
FUSE	1	8.2500
		8.2500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.080000	0.024000	0.104000
Material	Cost $	8.250000		8.250000
Equipment	Hours			0.104000

Components In This Task: 1115200

TASK DATA FORM

Task Code: 1115202

Component: SWITCHGEAR,INDOOR, > 600V. System: SERVICE AND DIST. Subsystem: POWER PROTECTION EQUIP.
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 2.00 A: 3.00 L: 4.00
Persons per Team: 1 Task Duration: 0.0130 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT AND CLEAN PANELS	0.010000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.010000	0.003000	0.013000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.013000

Components In This Task: 1115200

TASK DATA FORM

Task Code: 1115203

Component: SWITCHGEAR,INDOOR, > 600V. System: SERVICE AND DIST. Subsystem: POWER PROTECTION EQUIP.
Task Description: REPLACE REPLACE SWITCHGEAR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 25.00 A: 30.00 L: 35.00
Persons per Team: 2 Task Duration: 0.9508 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER (SIX SCREWS)	0.035400
2.DISCONNECT LOAD CONDUCTORS	0.014500
3.REMOVE LINE CONDUCTS.FROM TERM.	0.048000
4.REMOVE LOCK NUTS FROM CONDU.END	0.008900
5.REMOVE BUSHING FROM CONDUIT END	0.010900
6.LOOSEN NUTS ON COND. AT CASING	0.006700
7.LOOSEN NUTS ON COND AT CASING	0.006700
8.STRAIGHTEN WIRES (LINE SIDE)	0.024100
9.STRAIGHTEN WIRES (LOAD SIDE)	0.085000
10.REMOVE 40 LB.OR HEAVIER BOARD	0.040500
11.MOUNT PANEL BOARD ON WOOD SURF.	0.930300
12.CUT,SEPARATE FORM & ALIGN LEADS	0.085100
13.INSTALL BOLT TYP.CONNECTORS	0.089900
14.CUT,SEPARATE,FORM,ALIGN WIRES	0.058000
15.INSTALL PLUG OR CARTR.TYP.FUSES	0.004600
16.LOCATE & TEST CIRCUITS	0.014100

Material Resources

Description	Quantity	Unit Cost
SWITCHGEAR	1	167.2500
		167.2500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.462700	0.438810	1.901510
Material	Cost $	167.250000		167.250000
Equipment	Hours			0.950755

Components In This Task: 1115200

TASK DATA FORM

Task Code: 1116101

Component: TRANS.,LIQUID FILLED <600V System: SERVICE AND DIST. Subsystem: SECONDARY TRANSFORMER
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 1 Task Duration: 1.3000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TERMINAL	1.000000

Material Resources

Description	Quantity	Unit Cost
TERMINAL	1	25.0000
		25.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.000000	0.300000	1.300000
Material	Cost $	25.000000		25.000000
Equipment	Hours			1.300000

Components In This Task: 1116100

TASK DATA FORM

Task Code: 1116102

Component: TRANS.,LIQUID FILLED <600V System: SERVICE AND DIST. Subsystem: SECONDARY TRANSFORMER
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.6500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK CONNECTIONS & FLUID	0.500000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.500000	0.150000	0.650000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.650000

Components In This Task: 1116100

TASK DATA FORM

Task Code: 1116103

Component: TRANS.,LIQUID FILLED <600V System: SERVICE AND DIST. Subsystem: SECONDARY TRANSFORMER
Task Description: REPLACE REPLACE TRANSFORMER
Unit of Measure: COUNT Frequency of Occurrence: H: 25.00 A: 50.00 L: 100.00
Persons per Team: 2 Task Duration: 1.3128 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.RAISE TRANSFORMER TO INS.POSIT.	0.033200
2.INSTALL/REMOVE ONE TRANSFORMER	1.779300
3.MATERIAL HANDLING	0.207200

Material Resources

Description	Quantity	Unit Cost
TRANSFORMER	1	7213.0000
		7213.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.019700	0.605910	2.625610
Material	Cost $	7213.000000		7213.000000
Equipment	Hours			1.312805

Components In This Task: 1116100

TASK DATA FORM

Task Code: 1116201

Component: TRANS.,DRY, < 15,000V. System: SERVICE AND DIST. Subsystem: SECONDARY TRANSFORMER
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 1.3000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TERMINAL	1.000000

Material Resources

Description	Quantity	Unit Cost
TERMINAL	1	75.0000
		75.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.000000	0.300000	1.300000
Material	Cost $	75.000000		75.000000
Equipment	Hours			1.300000

Components In This Task: 1116200

TASK DATA FORM

Task Code: 1116202

Component: TRANS.,DRY, < 15,000V. System: SERVICE AND DIST. Subsystem: SECONDARY TRANSFORMER
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.0390 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT CONNECTION & TIGHTEN	0.030000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.030000	0.009000	0.039000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.039000

Components In This Task: 1116200

TASK DATA FORM

Task Code: 1116203

Component: TRANS.,DRY, < 15,000V. System: SERVICE AND DIST. Subsystem: SECONDARY TRANSFORMER
Task Description: REPLACE REPLACE TRANSFORMER
Unit of Measure: COUNT Frequency of Occurrence: H: 15.00 A: 30.00 L: 60.00
Persons per Team: 2 Task Duration: 1.3128 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.RAISE TRANSFORMER TO INST.POSIT	0.033200
2.INSTALL/REMOVE ONE TRANSFORMER	1.779300
3.MATERIAL HANDLING	0.207200

Material Resources

Description	Quantity	Unit Cost
TRANSFORMER	1	4182.0000
		4182.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.019700	0.605910	2.625610
Material	Cost $	4182.000000		4182.000000
Equipment	Hours			1.312805

Components In This Task: 1116200

TASK DATA FORM

Task Code: 1117101

Component: SWITCHGEAR,INDOOR, <600V. System: SERVICE AND DIST. Subsystem: LIGHTING PROTECTION
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.1040 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CIRCUIT BREAKER (5%)	0.080000

Material Resources

Description	Quantity	Unit Cost
CIRC.BREAKER	1	3.2500
		3.2500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.080000	0.024000	0.104000
Material	Cost $	3.250000		3.250000
Equipment	Hours			0.104000

Components In This Task: 1117100

TASK DATA FORM

Task Code: 1117102

Component: SWITCHGEAR,INDOOR, <600V. System: SERVICE AND DIST. Subsystem: LIGHTING PROTECTION
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 2.00 A: 3.00 L: 4.00
Persons per Team: 1 Task Duration: 0.0130 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT AND CLEAN PANEL	0.010000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.010000	0.003000	0.013000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.013000

Components In This Task: 1117100

TASK DATA FORM

Task Code: 1117103

Component: SWITCHGEAR,INDOOR, <600V. System: SERVICE AND DIST. Subsystem: LIGHTING PROTECTION
Task Description: REPLACE REPLACE SWITCHGEAR.
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 25.00 A: 30.00 L: 35.00
Persons per Team: 2 Task Duration: 0.5621 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER (SIX SCREWS)	0.035400
2.DISCONNECT LEAD CONDUCTORS	0.014500
3.REMOVE LINE CONDUCTORS	0.036000
4.REMOVE LOCK NUTS FROM CONDU.END	0.008900
5.REMOVE BUSHING FROM CONDUIT END	0.010900
6.LOOSEN NUTS ON CONDUIT AT CAS.	0.006700
7.LOOSEN NUTS ON CONDUIT AT CAS.	0.006700
8.STRAIGHTEN WIRES (LINE SIDE)	0.024100
9.STRAIGHTEN WIRES (LOAD SIDE)	0.032900
10.REMOVE 40 LB.OR HEAVIER P.BOARD	0.040500
11.MOUNT PANEL BOARD ON WOOD SURF.	0.527800
12.CUT,SEPARATE,FORM & ALIGN LEAD	0.033000
13.INSTALL BOLT-TY.CONNECTORS	0.067500
14.CUT,SEPARATE,FORM,ALIGN WIRES	0.005800
15.LOCATE AND TEST CIRCUIT	0.014100

Material Resources

Description	Quantity	Unit Cost
SWITCHGEAR	1	115.7500
		115.7500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.864800	0.259440	1.124240
Material	Cost $	115.750000		115.750000
Equipment	Hours			0.562120

Components In This Task: 1117100

TASK DATA FORM

Task Code: 1117201

Component: SWITCHGEAR,INDOOR, > 600V. System: SERVICE AND DIST. Subsystem: LIGHTING PROTECTION
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.1040 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CIRCUIT BREAKER (5%)	0.080000

Material Resources

Description	Quantity	Unit Cost
CIRC.BREAKER	1	12.5000
		12.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.080000	0.024000	0.104000
Material	Cost $	12.500000		12.500000
Equipment	Hours			0.104000

Components In This Task: 1117200

TASK DATA FORM

Task Code: 1117202

Component: SWITCHGEAR,INDOOR, > 600V. System: SERVICE AND DIST. Subsystem: LIGHTING PROTECTION
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.0130 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT AND CLEAN PANELS	0.010000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.010000	0.003000	0.013000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.013000

Components In This Task: 1117200

TASK DATA FORM

Task Code: 1117203

Component: SWITCHGEAR,INDOOR, > 600V. System: SERVICE AND DIST. Subsystem: LIGHTING PROTECTION
Task Description: REPLACE REPLACE SWITCHGEAR
Unit of Measure: PER CIRCUIT Frequency of Occurrence: H: 25.00 A: 30.00 L: 35.00
Persons per Team: 2 Task Duration: 0.9508 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER (SIX SCREWS)	0.035400
2.DISCONNECT CONDUCTORS FROM TER.	0.014500
3.REMOVE LINE CONDUCTS.FROM TERM.	0.048000
4.REMOVE LOCKNUTS FROM CONDU.END	0.008900
5.REMOVE BUSHING FROM CONDU.ENDS	0.010900
6.LOOSEN NUTS ON COND. AT CASING	0.006700
7.LOOSEN NUTS ON CONDU.AT CASING	0.006700
8.STRAIGHTEN WIRES (LINE SIDE)	0.024100
9.STRAIGHTEN WIRES (LOAD SIDE	0.085000
10.REMOVE 40-LB OR HEAVIER P.BOARD	0.040500
11.MOUNT PANEL BOARD ON WOOD SURF.	0.930300
12.CUT,SEPARATE,FORM & ALIGN LEADS	0.085100
13.INSTALL BOLT TY.CONNECTORS	0.089900
14.CUT,SEPARATE,FORM,ALIGN WIRES	0.058000
15.INSTALL PLUT/CARTRIDGE TY.FUSES	0.004600
16.LOCATE AND TEST CIRCUITS	0.014100

Material Resources

Description	Quantity	Unit Cost
SWITCHGEAR	1	167.2500
		167.2500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.462700	0.438810	1.901510
Material	Cost $	167.250000		167.250000
Equipment	Hours			0.950755

Components In This Task: 1117200

TASK DATA FORM

Task Code: 1118101

Component: CABLE,THRMPLST., <15,000V. System: SERVICE AND DIST. Subsystem: POWER & LIGHTING DIST.
Task Description: REPLACE REPLACE CABLE
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 130.00 A: 260.00 L: 350.00
Persons per Team: 2 Task Duration: 3.6814 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.SHUT OFF POWER,LATER TURN ON	0.014100
2.REMOVE COVER PLATE	0.046600
3.REMOVE SWITCH OR TERMINAL	0.008200
4.PULL WIRE SPLICES OUT	0.006000
5.REMOVE TAPE FROM SPLICES IN BOX	0.024900
6.CUT CONDUCTOR LEADS IN BOX	0.019600
7.CUT CABLE ADJACENT TO BOX	0.009300
8.REMOVE CABLE END FROM CONNECTOR	0.031700
9.REMOVE CABLES AND STAPLES	1.613200
10.REMOVE EXISTING TERMINAL BOXES	0.019800
11.PUSH RETAPED LEADS BACK IN BOX	0.006000
12.INSTALL COVER PLATE TO BOX	0.012900
13.LADDER TIME,ADDITIONAL,PER BOX	1.414000
14.INSTALL BOXES TO WOOD SURFACE	0.137500
15.INSTALL FOOTAGE OF CABLE	1.259500
16.REMOVE EXISTING BOX COVER PLATE	0.012900
17.REMOVE KNOCKOUT PLUGS IN BOXES	0.122200
18.FASTEN CABLE TO BOXES	0.897000
19.MOVE EXISTING WIRE SPLICE ASIDE	0.008300

Material Resources

Description	Quantity	Unit Cost
WIRE(#12)	1000FT	0.0500
STAPLES	200	0.0200
BOX	10	1.8000
		72.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.663700	1.699110	7.362810
Material	Cost $	72.000000		72.000000
Equipment	Hours			3.681405

Components In This Task: 1118100

TASK DATA FORM

Task Code: 1122322

Component: CIR. BKR.,M.C.< 599V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT, TIGHTEN WIRING	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122323

Component: CIR. BKR.,M.C.< 599V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 125.00 A: 250.00 L: 400.00
Persons per Team: 1 Task Duration: 0.7505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.DISCONNECT CONDUCTORS FROM TERM	0.028800
3.REMOVE BREAKER UNIT FROM CASING	0.049000
4.LOOSEN LOCKNUTS ON CONDUIT	0.017400
5.REMOVE LOCKNUTS FROM CON.CASING	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE 1 HOLE CLAIM OR CLIP	0.021800
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,FORM,ALIGN CONNECT WIRES	0.116000
13.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	212.0000
		212.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577300	0.173190	0.750490
Material	Cost $	212.000000		212.000000
Equipment	Hours			0.750490

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122331

Component: CIR. BKR.,M.C.< 599V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.8970 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TIGHTEN CONNECTIONS	0.690000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.690000	0.207000	0.897000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.897000

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122332

Component: CIR. BKR.,M.C.< 599V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT, TIGHTEN WIRING	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122333

Component: CIR. BKR.,M.C.< 599V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 125.00 A: 250.00 L: 400.00
Persons per Team: 1 Task Duration: 0.7505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.DISCONNECT CONDUCTORS FROM TERM	0.028800
3.REMOVE BREAKER UNIT FROM CASING	0.049000
4.LOOSEN LOCKNUTS ON CONDUIT	0.017400
5.REMOVE LOCKNUTS FROM CON.CASING	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE 1 HOLE CLAIM OR CLIP	0.021800
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,FORM,ALIGN CONNECT WIRES	0.116000
13.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	69.0000
		69.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577300	0.173190	0.750490
Material	Cost $	69.000000		69.000000
Equipment	Hours			0.750490

Components In This Task: 1122310 1122320 1122330

TASK DATA FORM

Task Code: 1122341

Component: CIR. BKR.,M.C.> 600V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R REPAIR FAILED BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 2.0995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TRIP SWITCH	1.615000

Material Resources

Description	Quantity	Unit Cost
TRIP SWITCH	1	79.8000
		79.8000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.484500	2.099500
Material	Cost $	79.800000		79.800000
Equipment	Hours			2.099500

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122342

Component: CIR. BKR.,M.C.> 600V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT CIRCUIT BREAKER	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122343

Component: CIR. BKR.,M.C.> 600V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 100.00 A: 200.00 L: 400.00
Persons per Team: 1 Task Duration: 0.9729 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.REMOVE SOLDERLESS,SCREW TY.LUGS	0.007200
3.REMOVE BREAKER UNI.FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON COND.ENDS	0.017400
5.REMOVE LOCKNUTS FROM COND.ENDS	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.060600
7.REMOVE 2 HOLE CLAMP OR CLIP	0.039600
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,SEPARATE,FORM & ALIGN CIR.	0.129000
13.INSTALL SOLDERLESS SCREW TY.LUG	0.134700
14.CHECK OPERATION OF BREAKERS	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	242.0000
		242.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.748400	0.224520	0.972920
Material	Cost $	242.000000		242.000000
Equipment	Hours			0.972920

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122351

Component: CIR. BKR.,M.C.> 600V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R REPAIR FAILED BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 2.0995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TRIP SWITCH	1.615000

Material Resources

Description	Quantity	Unit Cost
TRIP SWITCH	1	79.8000
		79.8000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.484500	2.099500
Material	Cost $	79.800000		79.800000
Equipment	Hours			2.099500

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122352

Component: CIR. BKR.,M.C.> 600V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT CIRCUIT BREAKER	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122353

Component: CIR. BKR.,M.C.> 600V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 100.00 A: 200.00 L: 400.00
Persons per Team: 1 Task Duration: 0.9729 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.REMOVE SOLDERLESS,SCREW TY.LUGS	0.[illegible]
3.REMOVE BREAKER UNI.FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON COND.ENDS	0.017400
5.REMOVE LOCKNUTS FROM COND.ENDS	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.060600
7.REMOVE 2 HOLE CLAMP OR CLIP	0.039600
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,SEPARATE,FORM & ALIGN CIR.	0.129000
13.INSTALL SOLDERLESS SCREW TY.LUG	0.134700
14.CHECK OPERATION OF BREAKERS	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	540.0000
		540.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.748400	0.224520	0.972920
Material	Cost $	540.000000		540.000000
Equipment	Hours			0.972920

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122361

Component: CIR. BKR.,M.C.> 600V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R REPAIR FAILED BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 2.0995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TRIP SWITCH	1.615000

Material Resources

Description	Quantity	Unit Cost
TRIP SWITCH	1	79.8000
		79.8000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.484500	2.099500
Material	Cost $	79.800000		79.800000
Equipment	Hours			2.099500

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122362

Component: CIR. BKR.,M.C.> 600V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT CIRCUIT BREAKER	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122363

Component: CIR. BKR.,M.C.> 600V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 100.00 A: 200.00 L: 400.00
Persons per Team: 1 Task Duration: 0.9729 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.REMOVE SOLDERLESS,SCREW TY.LUGS	0.007200
3.REMOVE BREAKER UNI.FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON COND.ENDS	0.017400
5.REMOVE LOCKNUTS FROM COND.ENDS	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.060600
7.REMOVE 2 HOLE CLAMP OR CLIP	0.039600
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,SEPARATE,FORM & ALIGN CIR.	0.129000
13.INSTALL SOLDERLESS SCREW TY.LUG	0.134700
14.CHECK OPERATION OF BREAKERS	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	871.0000
		871.0000

UMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.748400	0.224520	0.972920
Material	Cost $	871.000000		871.000000
Equipment	Hours			0.972920

Components In This Task: 1122340 1122350 1122360

TASK DATA FORM

Task Code: 1122371

Component: CIR. BKR.,FIXED <599V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 50.00 A: 100.00 L: 200.00
Persons per Team: 1 Task Duration: 0.8970 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.TIGHTEN CONNECTIONS	0.690000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.690000	0.207000	0.897000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.897000

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122372

Component: CIR. BKR.,FIXED <599V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & TIGHTEN WIRING	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122373

Component: CIR. BKR.,FIXED <599V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 125.00 A: 250.00 L: 400.00
Persons per Team: 1 Task Duration: 0.7505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATES	0.035400
2.DISCONNECT CONDUCTORS FROM TERM	0.028800
3.REMOVE BREAKER UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON COND.CASING	0.017400
5.REMOVE LOCKNUTS FROM COND.CAS.	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE ONE HOLE CLAMP OR CLIP	0.021800
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT IN CASING	0.049000
12.CUT,FORM,ALIGN & CONNECT WIRES	0.116000
13.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	10.6000
		10.6000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577300	0.173190	0.750490
Material	Cost $	10.600000		10.600000
Equipment	Hours			0.750490

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122381

Component: CIR. BKR.,FIXED <599V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 50.00 A: 100.00 L: 200.00
Persons per Team: 1 Task Duration: 0.8970 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TIGHTEN CONNECTIONS	0.690000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.690000	0.207000	0.897000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.897000

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122382

Component: CIR. BKR.,FIXED <599V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & TIGHTEN WIRING	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122383

Component: CIR. BKR.,FIXED <599V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 125.00 A: 250.00 L: 400.00
Persons per Team: 1 Task Duration: 0.7505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATES	0.035400
2.DISCONNECT CONDUCTORS FROM TERM	0.028800
3.REMOVE BREAKER UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON COND.CASING	0.017400
5.REMOVE LOCKNUTS FROM COND.CAS.	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE ONE HOLE CLAMP OR CLIP	0.021800
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT IN CASING	0.049000
12.CUT,FORM,ALIGN & CONNECT WIRES	0.116000
13.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	24.1000
		24.1000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577300	0.173190	0.750490
Material	Cost $	24.100000		24.100000
Equipment	Hours			0.750490

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122391

Component: CIR. BKR.,FIXED <599V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTEMANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 50.00 A: 100.00 L: 200.00
Persons per Team: 1 Task Duration: 0.8970 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.TIGHTEN CONNECTIONS	0.690000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.690000	0.207000	0.897000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.897000

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122392

Component: CIR. BKR.,FIXED <599V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & TIGHTEN WIRING	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 1122393

Component: CIR. BKR.,FIXED <599V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 125.00 A: 250.00 L: 400.00
Persons per Team: 1 Task Duration: 0.7505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATES	0.035400
2.DISCONNECT CONDUCTORS FROM TERM	0.028800
3.REMOVE BREAKER UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON COND.CASING	0.017400
5.REMOVE LOCKNUTS FROM COND.CAS.	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE ONE HOLE CLAMP OR CLIP	0.021800
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT IN CASING	0.049000
12.CUT,FORM,ALIGN & CONNECT WIRES	0.116000
13.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	83.0000
		83.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577300	0.173190	0.750490
Material	Cost $	83.000000		83.000000
Equipment	Hours			0.750490

Components In This Task: 1122370 1122380 1122390

TASK DATA FORM

Task Code: 11223A1

Component: CIR. BKR.,FIXED >600V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R REPAIR FAILED BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 4.00 L: 8.00
Persons per Team: 1 Task Duration: 2.0995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.MINOR REPAIRS	1.615000

Material Resources

Description	Quantity	Unit Cost
COMPONENT	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.4500	2.099500
Material	Cost $	250.000000		250.000000
Equipment	Hours			2.099500

Components In This Task: 11223A0 11223B0 11223C0

TASK DATA FORM

Task Code: 11223A2

Component: CIR. BKR.,FIXED >600V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT CIRCUIT BREAKER	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 11223A0 11223B0 11223C0

TASK DATA FORM

Task Code: 11223A3

Component: CIR. BKR.,FIXED >600V 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 6.00 A: 12.00 L: 24.00
Persons per Team: 1 Task Duration: 0.9729 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.REMOVE SOLDERLESS,SCR,TYPE LUGS	0.007200
3.REMOVE BREAKER UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON CONDU.ENDS	0.017400
5.REMOVE LOCKNUTS FROM COND.ENDS	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.060600
7.REMOVE TWO HOLE CLAMP OR CLIP	0.039600
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,SEPARATE,FORM & ALIGN WIRES	0.129000
13.INSTALL SOLDERLESS SCR.TYPE LUG	0.134700
14.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	65.0000
		65.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.748400	0.224520	0.972920
Material	Cost $	65.000000		65.000000
Equipment	Hours			0.972920

Components In This Task: 11223A0 11223B0 11223C0

TASK DATA FORM

Task Code: 1122381

Component: CIR. BKR.,FIXED >600V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R REPAIR FAILED BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 4.00 L: 8.00
Persons per Team: 1 Task Duration: 2.0995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.MINOR REPAIRS	1.615000

Material Resources

Description	Quantity	Unit Cost
COMPONENT	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.484500	2.099500
Material	Cost $	250.000000		250.000000
Equipment	Hours			2.099500

Components In This Task: 11223A0 1122380 11223C0

TASK DATA FORM

Task Code: 1122382

Component: CIR. BKR.,FIXED >600V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT CIRCUIT BREAKER	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 11223A0 1122380 11223C0

TASK DATA FORM

Task Code: 1122383

Component: CIR. BKR.,FIXED >600V 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 6.00 A: 12.00 L: 24.00
Persons per Team: 1. Task Duration: 0.9729 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.REMOVE SOLDERLESS,SCR,TYPE LUGS	0.007200
3.REMOVE BREAKER UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON CONDU.ENDS	0.017400
5.REMOVE LOCKNUTS FROM COND.ENDS	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.060600
7.REMOVE TWO HOLE CLAMP OR CLIP	0.039600
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,SEPARATE,FORM & ALIGN WIRES	0.129000
13.INSTALL SOLDERLESS SCR.TYPE LUG	0.134700
14.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	242.0000
		242.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.748400	0.224520	0.972920
Material	Cost $	242.000000		242.000000
Equipment	Hours			0.972920

Components In This Task: 11223A0 1122380 11223C0

TASK DATA FORM

Task Code: 11223C1

Component: CIR. BKR.,FIXED >600V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R REPAIR FAILED BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 4.00 L: 8.00
Persons per Team: 1 Task Duration: 2.0995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.MINOR REPAIRS	1.615000

Material Resources

Description	Quantity	Unit Cost
COMPONENT	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.484500	2.099500
Material	Cost $	250.000000		250.000000
Equipment	Hours			2.099500

Components In This Task: 11223A0 1122380 11223C0

TASK DATA FORM

Task Code: 11223C2

Component: CIR. BKR.,FIXED >600V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 0.4030 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT CIRCUIT BREAKER	0.310000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.310000	0.093000	0.403000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.403000

Components In This Task: 11223A0 11223B0 11223C0

TASK DATA FORM

Task Code: 11223C3

Component: CIR. BKR.,FIXED >600V 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE CIRCUIT BREAKER
Unit of Measure: COUNT Frequency of Occurrence: H: 6.00 A: 12.00 L: 24.00
Persons per Team: 1 Task Duration: 1.0572 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.REMOVE SOLDERLESS,SCR.TYPE LUGS	0.072000
3.REMOVE BREAKER UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON CONDU.ENDS.	0.017400
5.REMOVE LOCKNUTS FROM COND.ENDS	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.060600
7.REMOVE TWO HOLE CLAMP OR CLIP	0.039600
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT CIRCUIT BREAKER CASING	0.134900
10.REMOVE BREAKER UNIT FROM CARTON	0.015400
11.INSTALL BREAKER UNIT TO CASTING	0.048900
12.CUT,SEPARATE,FORM & ALIGN WIRES	0.129000
13.INSTALL SOLDERLESS SCR.TYPE LUG	0.134700
14.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
BREAKER	1	310.0000
		310.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.813200	0.243960	1.057160
Material	Cost $	310.000000		310.000000
Equipment	Hours			1.057160

Components In This Task: 11223A0 11223B0 11223C0

TASK DATA FORM

Task Code: 1122411

Component: SAFETY SWITCH, FUSED, 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 4.00 A: 8.00 L: 16.00
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.RESECURE LUGS	0.385000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.500500

Components In This Task: 1122100 1122410 1122420 1122430

TASK DATA FORM

Task Code: 1122412

Component: SAFETY SWITCH, FUSED, 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.7930 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & CLEAN SAFETY SWITCH	0.610000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.610000	0.183000	0.793000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.793000

Components In This Task: 1122100 1122410 1122420 1122430

TASK DATA FORM

Task Code: 1122413

Component: SAFETY SWITCH, FUSED, 1P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE SAFETY SWITCH
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 2 Task Duration: 0.2827 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.DISCONNECT CONDUCT FROM TERMIN.	0.028800
2.LOOSEN LOCKNUTS ON CONDUITS	0.017400
3.REMOVE LOCKNUT-CONDUIT ENDS	0.021800
4.STRAIGHTEN CIRCUIT WIRES	0.033300
5.REMOVE 1 HOLE CLAMP OR CLIP	0.021800
6.REMOVE SAFETY SWITCH INTACT	0.040500
7.MOUNT SAFETY SWITCH ON WOOD	0.134900
8.CUT,FORM & ALIGN CIRCUIT WIRES	0.111600
9.INSTALL PLUG OR CARTRIDGE FUSES	0.010700
10.CHECK OPERATION OF SWITCH	0.014100

Material Resources

Description	Quantity	Unit Cost
SAFETY SW.	1	15.0000
		15.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.434900	0.130470	0.565370
Material	Cost $	15.000000		15.000000
Equipment	Hours			0.282685

Components In This Task: 1122410

TASK DATA FORM

Task Code: 1122421

Component: SAFETY SWITCH, FUSED, 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 4.00 A: 8.00 L: 16.00
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.RESECURE LUGS	0.385000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.500500

Components In This Task: 1122100 1122410 1122420 1122430

TASK DATA FORM

Task Code: 1122422

Component: SAFETY SWITCH, FUSED, 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.7930 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & CLEAN SAFETY SWITCH	0.610000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.610000	0.183000	0.793000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.793000

Components In This Task: 1122100 1122410 1122420 1122430

TASK DATA FORM

Task Code: 1122423

Component: SAFETY SWITCH, FUSED, 2P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE SAFETY SWITCH
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 2 Task Duration: 0.2827 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.DISCONNECT CONDUCT FROM TERMIN.	0.028800
2.LOOSEN LOCKNUTS ON CONDUITS	0.017400
3.REMOVE LOCKNUT-CONDUIT ENDS	0.021800
4.STRAIGHTEN CIRCUIT WIRES	0.033300
5.REMOVE 1 HOLE CLAMP OR CLIP	0.021800
6.REMOVE SAFETY SWITCH INTACT	0.040500
7.MOUNT SAFETY SWITCH ON WOOD	0.134900
8.CUT,FORM & ALIGN CIRCUIT WIRES	0.111600
9.INTSALL PLUG OR CARTRIDGE FUSES	0.010700
10.CHECK OPERATION OF SWITCH	0.014100

Material Resources

Description	Quantity	Unit Cost
SAFETY SW.	1	42.0000
		42.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.434900	0.130470	0.565370
Material	Cost $	42.000000		42.000000
Equipment	Hours			0.282685

Components In This Task: 1122420

TASK DATA FORM

Task Code: 1122431

Component: SAFETY SWITCH, FUSED, 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 4.00 A: 8.00 L: 16.00
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources		Material Resources		
Subtask Description	Labor Hrs	Description	Quantity	Unit Cost
1.RESECURE LUGS	0.385000			0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.500500

Components In This Task: 1122100 1122410 1122420 1122430

TASK DATA FORM

Task Code: 1122432

Component: SAFETY SWITCH, FUSED, 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.7930 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources		Material Resources		
Subtask Description	Labor Hrs	Description	Quantity	Unit Cost
1.INSPECT & CLEAN SAFETY SWITCH	0.610000			0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.610000	0.183000	0.793000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.793000

Components In This Task: 1122100 1122410 1122420 1122430

TASK DATA FORM

Task Code: 1122433

Component: SAFETY SWITCH, FUSED, 3P System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE SAFETY SWITCH
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 2 Task Duration: 0.2827 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.DISCONNECT CONDUCT FROM TERMIN.	0.028800
2.LOOSEN LOCKNUTS ON CONDUITS	0.017400
3.REMOVE LOCKNUT-CONDUIT ENDS	0.021800
4.STRAIGHTEN CIRCUIT WIRES	0.033300
5.REMOVE 1 HOLE CLAMP OR CLIP	0.021800
6.REMOVE SAFETY SWITCH INTACT	0.040500
7.MOUNT SAFETY SWITCH ON WOOD	0.134900
8.CUT,FORM & ALIGN CIRCUIT WIRES	0.111600
9.INSTALL PLUG OR CARTRIDGE FUSES	0.010700
10.CHECK OPERATION OF SWITCH	0.014100

Material Resources

Description	Quantity	Unit Cost
SAFETY SW.	1	95.0000
		95.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.434900	0.130470	0.565370
Material	Cost $	95.000000		95.000000
Equipment	Hours			0.282685

Components In This Task: 1122430

TASK DATA FORM

Task Code: 1122441

Component: LOW VOLTAGE CARTRIDGE System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE LOW VOLTAGE CARTRIDGE
Unit of Measure: COUNT Frequency of Occurrence: H: 25.00 A: 50.00 L: 100.00
Persons per Team: 1 Task Duration: 0.0650 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CARTRIDGE	0.050000

Material Resources

Description	Quantity	Unit Cost
CARTRIDGE	1	0.7900
		0.7900

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.050000	0.015000	0.065000
Material	Cost $	0.790000		0.790000
Equipment	Hours			0.065000

Components In This Task: 1122440

TASK DATA FORM

Task Code: 1122451

Component: PLUG FUSE System: POWER SYSTEM Subsystem: SAFETY SWITCH
Task Description: REPLACE REPLACE PLUG FUSE
Unit of Measure: COUNT Frequency of Occurrence: H: 20.00 A: 35.00 L: 75.00
Persons per Team: 1 Task Duration: 0.1040 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE FUSE	0.080000

Material Resources

Description	Quantity	Unit Cost
FUSE	1	0.3000
		0.3000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.080000	0.024000	0.104000
Material	Cost $	0.300000		0.300000
Equipment	Hours			0.104000

Components In This Task: 1122450

TASK DATA FORM

Task Code: 1123601

Component: MOTOR STARTER, < 600V. System: POWER SYSTEM Subsystem: MOTOR STARTER
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 3.00 A: 5.00 L: 10.00
Persons per Team: 1 Task Duration: 1.9500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE COIL	1.500000

Material Resources

Description	Quantity	Unit Cost
COIL	1	25.0000
		25.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.500000	0.450000	1.950000
Material	Cost $	25.000000		25.000000
Equipment	Hours			1.950000

Components In This Task: 1123600

TASK DATA FORM

Task Code: 1123602

Component: MOTOR STARTER, < 600V. System: POWER SYSTEM Subsystem: MOTOR STARTER
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.6500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & CLEAN MOTOR STARTER	0.500000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.500000	0.150000	0.650000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.650000

Components In This Task: 1123600

TASK DATA FORM

Task Code: 1123603

Component: MOTOR STARTER, < 600V. System: POWER SYSTEM Subsystem: MOTOR STARTER
Task Description: REPLACE REPLACE STARTER
Unit of Measure: COUNT Frequency of Occurrence: H: 9.00 A: 18.00 L: 36.00
Persons per Team: 1 Task Duration: 0.8382 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.DISCONNECT CONDUCTORS -TERMIN.	0.202900
2.LOOSEN LOCKNUTS ON CONDUIT CAS.	0.017400
3.REMOVE LOCKNUTS FROM CONDU.ENDS	0.021800
4.STRAIGHTEN CIRCUIT WIRES	0.011100
5.REMOVE ONE HOLE CLAMP ON CLIP	0.021800
6.REMOVE SAFETY SWITCH INTACT	0.040500
7.MOUNT CIRCUIT BREAKER CASING	0.134900
8.REMOVE BREAKER UNIT FROM CARTON	0.015400
9.INSTALL BREAKER UNIT TO CASING	0.048900
10.CUT,FORM,ALIGN & CONNECT CIRCU.	0.116000
11.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
STARTER	1	95.1600
		95.1600

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.644800	0.193440	0.838240
Material	Cost $	95.160000		95.160000
Equipment	Hours			0.838240

Components In This Task: 1123600

TASK DATA FORM

Task Code: 1123701

Component: MOTOR STARTER,601-15,000V. System: POWER SYSTEM Subsystem: MOTOR STARTER
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 3.00 L: 6.00
Persons per Team: 1 Task Duration: 6.7002 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE COIL	5.154000

Material Resources

Description	Quantity	Unit Cost
COIL	1	75.0000
		75.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.154000	1.546200	6.700200
Material	Cost $	75.000000		75.000000
Equipment	Hours			6.700200

Components In This Task: 1123700

TASK DATA FORM

Task Code: 1123702

Component: MOTOR STARTER,601-15,000V. System: POWER SYSTEM Subsystem: MOTOR STARTER
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.25 A: 0.25 L: 0.25
Persons per Team: 1 Task Duration: 0.6500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT & CLEAN MOTOR STARTER	0.500000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.500000	0.150000	0.650000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.650000

Components In This Task: 1123700

TASK DATA FORM

Task Code: 1123703

Component: MOTOR STARTER,601-15,000V. System: POWER SYSTEM Subsystem: MOTOR STARTER
Task Description: REPLACE REPLACE STARTER
Unit of Measure: COUNT Frequency of Occurrence: H: 9.00 A: 18.00 L: 36.00
Persons per Team: 2 Task Duration: 0.4505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE SOLDERLESS,SCR.TYPE LUG	0.028800
2.LOOSEN LOCKNUTS ON CONDUIT CAS.	0.017400
3.REMOVE LOCKNUTS - CONDUIT ENDS	0.021800
4.STRAIGHTEN CIRCUIT WIRES	0.068100
5.REMOVE 2 HOLE CLAMP OR CLIP	0.039600
6.REMOVE STARTER INTACT	0.040500
7.MOUNT STARTER CASING	0.134900
8.REMOVE STARTER UNIT FROM CARTON	0.015400
9.INSTALL STARTER UNIT TO CASING	0.048900
10.CUT,SEPARATE,FORM & ALIGN WIRES	0.128900
11.INSTALL SOLDERLESS SCR.TY.LUGS	0.134700
12.CHECK OPERATION OF BREAKER	0.014100

Material Resources

Description	Quantity	Unit Cost
STARTER	1	2304.0000
		2304.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.693100	0.207930	0.901030
Material	Cost $	2304.000000		2304.000000
Equipment	Hours			0.450515

Components In This Task: 1123700

TASK DATA FORM

Task Code: 1124001

Component: CONTACTORS AND RELAYS System: POWER SYSTEM Subsystem: CONTACTORS AND RELAYS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 3.00 L: 6.00
Persons per Team: 1 Task Duration: 2.6000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE COIL	2.000000

Material Resources

Description	Quantity	Unit Cost
COIL	1	15.0000
		15.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.000000	0.600000	2.600000
Material	Cost $	15.000000		15.000000
Equipment	Hours			2.600000

Components In This Task: 1124000

TASK DATA FORM

Task Code: 1124002

Component: CONTACTORS AND RELAYS System: POWER SYSTEM Subsystem: CONTACTORS AND RELAYS
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.2080 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT AND CLEAN CONTACTS	0.160000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.160000	0.048000	0.208000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.208000

Components In This Task: 1124000

TASK DATA FORM

Task Code: 1124003

Component: CONTACTORS AND RELA\ System: POWER SYSTEM Subsystem: CONTACTORS AND RELAYS
Task Description: REPLACE REPLACE CONTACTOR/RELAY
Unit of Measure: COUNT Frequency of Occurrence: H: 9.00 A: 18.00 L: 36.00
Persons per Team: 1 Task Duration: 0.7505 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035400
2.DISCONNECT CONDUCTORS FROM TERM	0.028800
3.REMOVE RELAY UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON CONDUITS	0.017400
5.REMOVE LOCKNUTS FROM CONDUITS	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE 1 HOLE CLAMP OR CLIP	0.021800
8.REMOVE CASING FROM WOOD SURF.	0.040500
9.MOUNT RELAY CASING	0.134900
10.REMOVE RELAY UNIT	0.015400
11.INSTALL RELAY UNIT TO CASING	0.049000
12.CUT,FORM,ALIGN & CONNECT WIRES	0.116000
13.CHECK OPERATION OF RELAY	0.014100

Material Resources

Description	Quantity	Unit Cost
RELAY	1	190.0000
		190.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577300	0.173190	0.750490
Material	Cost $	190.000000		190.000000
Equipment	Hours			0.750490

Components In This Task: 1124000

TASK DATA FORM

Task Code: 1127101

Component: WIRING DEVICES, SWITCHES System: POWER SYSTEM Subsystem: RECEPTACLES AND PLUGS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR SWITCH.	0.385000

Material Resources

Description	Quantity	Unit Cost
COVER	1	1.5000
		1.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	1.500000		1.500000
Equipment	Hours			0.500500

Components In This Task: 1127100

TASK DATA FORM

Task Code: 1127102

Component: WIRING DEVICES, SWITCHES System: POWER SYSTEM Subsystem: RECEPTACLES AND PLUGS
Task Description: REPLACE REPLACE SWITCH
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 30.00
Persons per Team: 1 Task Duration: 0.4774 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN POWER SWITCH OFF/ON	0.014100
2.REMOVE & INSTALL COVER PLATES	0.125900
3.REMOVE UNIT MOUNTING SCREWS	0.021900
4.PULL CONNECTED UNIT OUT OF BOX	0.013100
5.DISCONNECT WIRES FROM TERMINAL	0.009600
6.TAPE WIRE ENDS	0.014000
7.TURN POWER SWITCH OFF/ON	0.014100
8.UNPACK UNIT FROM CARTON	0.015400
9.CUT,FORM,ALIGN & CONNECT WIRES	0.020200
10.POSITION CONNECTED UNIT	0.031300
11.FASTEN UNIT TO BOX	0.012900
12.TEST FOR OPERATION	0.011200
13.INSTALL COVER PLATE	0.029000
14.MATERIAL HANDLING	0.034500

Material Resources

Description	Quantity	Unit Cost
SWITCH	1	4.2300
		4.2300

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.367200	0.110160	0.477360
Material	Cost $	4.230000		4.230000
Equipment	Hours			0.477360

Components In This Task: 1127100

TASK DATA FORM

Task Code: 1127201

Component: RECEPTACLES AND PLUGS System: POWER SYSTEM Subsystem: RECEPTACLES AND PLUGS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 15.00 A: 20.00 L: 25.00
Persons per Team: 1 Task Duration: 0.5109 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR RECEPTACLE	0.393000

Material Resources

Description	Quantity	Unit Cost
COVER	1	1.5000
		1.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.393000	0.117900	0.510900
Material	Cost $	1.500000		1.500000
Equipment	Hours			0.510900

Components In This Task: 1127200

TASK DATA FORM

Task Code: 1127202

Component: RECEPTACLES AND PLUGS System: POWER SYSTEM Subsystem: RECEPTACLES AND PLUGS
Task Description: REPLACE REPLACE RECEPTACLE/PLUG
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.4774 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN POWER SWITCH OFF/ON	0.014100
2.REMOVE/REINSTALL COVER PLATES	0.125900
3.REMOVE UNIT MOUNTING SCREWS	0.021900
4.PULL CONNECTED UNIT OUT OF BOX.	0.013100
5.DISCONNECT WIRES FROM TERMINAL	0.009600
6.TAPE WIRE ENDS	0.014000
7.TURN POWER SWITCH OFF\ON	0.014100
8.UNPACK UNIT FROM CARTON	0.015400
9.CUT,FORM,ALIGN & CONNECT WIRES	0.020200
10.POSITION CONNECTED UNIT	0.031300
11.FASTEN UNIT TO BOX	0.012900
12.TEST FOR OPERATION	0.011200
13.INSTALL COVER PLATE	0.029000
14.MATERIAL HANDLING	0.034500

Material Resources

Description	Quantity	Unit Cost
RECEPTACLE	1	5.5500
		5.5500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.367200	0.110160	0.477360
Material	Cost $	5.550000		5.550000
Equipment	Hours			0.477360

Components In This Task: 1127200

TASK DATA FORM

Task Code: 1127301

Component: SWITCH, PULL CORD System: POWER SYSTEM Subsystem: RECEPTACLES AND PLUGS
Task Description: M/R MAINTANENCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 5.00 L: 7.00
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR SWITCH	0.385000

Material Resources

Description	Quantity	Unit Cost
COVER PLATE	1 UNIT	1.5000
		1.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	1.500000		1.500000
Equipment	Hours			0.500500

Components In This Task:

TASK DATA FORM

Task Code: 1127302

Component: SWITCH, PULL CORD System: POWER SYSTEM Subsystem: RECEPTACLES AND PLUGS
Task Description: REPLACE REPLACE SWITCH
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 30.00
Persons per Team: 1 Task Duration: 0.4774 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN POWER SWITCH OFF/ON	0.014100
2.REMOVE & INSTALL COVER PLATES	0.125900
3.REMOVE UNIT MOUNTING SCREWS	0.021900
4.PULL CONNECTED UNIT OUT OF BOX	0.013100
5.DISCONNECT WIRES FROM TERMINAL	0.009600
6.TAPE WIRE ENDS	0.014000
7.TURN POWER SWITCH OFF/ON	0.014100
8.UNPACK UNIT FROM CARTON	0.015400
9.CUT,FORM,ALIGN & CONNECT WIRES	0.020200
10.POSITION CONNECTED UNIT	0.031300
11.FASTEN UNIT TO BOX	0.012900
12.TEST FOR OPERATION	0.011200
13.INSTALL COVER PLATE	0.029000
14.MATERIAL HANDLING	0.034500

Material Resources

Description	Quantity	Unit Cost
SWITCH	1 UNIT	4.2300
		4.2300

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.367200	0.110160	0.477360
Material	Cost $	4.230000		4.230000
Equipment	Hours			0.477360

Components In This Task:

TASK DATA FORM

Task Code: 1131101

Component: INCANDESCENT LIGHTING FIXT System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 30.00
Persons per Team: 1 Task Duration: 0.3900 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE GLASS GLOBE	0.300000

Material Resources

Description	Quantity	Unit Cost
GLOBE	1	10.0000
		10.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.300000	0.090000	0.390000
Material	Cost $	10.000000		10.000000
Equipment	Hours			0.390000

Components In This Task: 1131100

TASK DATA FORM

Task Code: 1131102

Component: INCANDESCENT LIGHTING FIXT System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R LAMPS
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 5.00 L: 8.00
Persons per Team: 1 Task Duration: 0.0686 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHANGE LAMP IN FLUSH TYPE	0.052800

Material Resources

Description	Quantity	Unit Cost
LAMP	1	0.9000
		0.9000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.052800	0.015840	0.068640
Material	Cost $	0.900000		0.900000
Equipment	Hours			0.068640

Components In This Task: 1131100

TASK DATA FORM

Task Code: 1131103

Component: INCANDESCENT LIGHTING FIXT System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE LIGHTING FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.4485 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN CIRCUIT OFF/ON FOR FIXTURE	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX/TAPE ENDS	0.016600
4.DISASSEMBLE/REMOVE FIXTURES	0.090700
5.REMOVE/UNPACK PARTS FOR FIXTURE	0.015400
6.INSTALL MOUNTING BRACKETS	0.032100
7.ASSEMBLE AND HANG FIXTURES	0.163200

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	16.0000
		16.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.345000	0.103500	0.448500
Material	Cost $	16.000000		16.000000
Equipment	Hours			0.448500

Components In This Task: 1131100

TASK DATA FORM

Task Code: 1131201

Component: QUARTZ FIXTURE System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.3900 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR GLASS LENS	0.300000

Material Resources

Description	Quantity	Unit Cost
COVER	1	1.1600
		1.1600

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.300000	0.090000	0.390000
Material	Cost $	1.160000		1.160000
Equipment	Hours			0.390000

Components In This Task: 1131200

TASK DATA FORM

Task Code: 1131202

Component: QUARTZ FIXTURE System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMP
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.0328 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL LAMP	0.025200

Material Resources

Description	Quantity	Unit Cost
.AMP	1	45.0000
		45.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.025200	0.007560	0.032760
Material	Cost $	45.000000		45.000000
Equipment	Hours			0.032760

Components In This Task: 1131200

TASK DATA FORM

Task Code: 1131203

Component: QUARTZ FIXTURE System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.4485 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF/ON	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX AND TAPE ENDS	0.016600
4.DISASSEMBLE AND REMOVE FIXTURES	0.090700
5.REMOVE AND UNPACK PARTS	0.015400
6.INSTALL MOUNTING BRACKETS	0.032100
7.ASSEMBLE AND HANG FIXTURES	0.163200

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	55.0000
		55.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.345000	0.103500	0.448500
Material	Cost $	55.000000		55.000000
Equipment	Hours			0.448500

Components In This Task: 1131200

TASK DATA FORM

Task Code: 1131301

Component: FLOUR. LIGHTING FIXT. 80W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.8325 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL LOUVER	0.004100
2.REMOVE/INSTALL 4 TUBES/FIXTURES	0.238200
3.REMOVE OLD/REINSTALL BALLAST	0.384000
4.TEST FIXTURE	0.014100

Material Resources

Description	Quantity	Unit Cost
BALLAST	1	15.0000
		15.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.640400	0.192120	0.832520
Material	Cost $	15.000000		15.000000
Equipment	Hours			0.832520

Components In This Task: 1131300

TASK DATA FORM

Task Code: 1131302

Component: FLOUR. LIGHTING FIXT. 80W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMPS (2)
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.0459 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHANGE LAMPS IN FIXTURE	0.035300

Material Resources

Description	Quantity	Unit Cost
LAMPS	2	2.2500
		4.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.035300	0.010590	0.045890
Material	Cost $	4.500000		4.500000
Equipment	Hours			0.045890

Components In This Task: 1131300

TASK DATA FORM

Task Code: 1131303

Component: FLOUR. LIGHTING FIXT. 80W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.7413 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF/ON	0.014100
2.REMOVE AND REINSTALL BOX COVER	0.025700
3.CUT LEADS IN BOX AND TAPE ENDS	0.016500
4.REMOVE CABLE CONNECTOR	0.081000
5.INSTALL KNOCKOUT HOLE PLUG	0.012800
6.REMOVE/REINSTALL LOUVER	0.004100
7.DISASSEMBLE/REMOVE FIXTURES	0.102900
8.REMOVE AND UNPACK PARTS	0.030200
9.INSTALL MOUNTING BRACKETS	0.064300
10.ASSEMBLE/HANG OPEN REFLECTOR	0.218600

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	64.0000
		64.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.570200	0.171060	0.741260
Material	Cost $	64.000000		64.000000
Equipment	Hours			0.741260

Components In This Task: 1131300

TASK DATA FORM

Task Code: 1131411

Component: MERCURY VAPOR FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.6154 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL LOUVER	0.004100
2.REMOVE AND REINSTALL 1 TUBE	0.071200
3.REMOVE OLD/REINSTALL BALLAST	0.384000
4.TEST FIXTURES	0.014100

Material Resources

Description	Quantity	Unit Cost
BALLAST	1	50.0000
		50.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.473400	0.142020	0.615420
Material	Cost $	50.000000		50.000000
Equipment	Hours			0.615420

Components In This Task: 1131410

TASK DATA FORM

Task Code: 1131412

Component: MERCURY VAPOR FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMP
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.0686 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHANGE LAMP IN FLUSH FIXTURE	0.052800

Material Resources

Description	Quantity	Unit Cost
LAMP	1	27.0000
		27.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.052800	0.015840	0.068640
Material	Cost $	27.000000		27.000000
Equipment	Hours			0.068640

Components In This Task: 1131410

TASK DATA FORM

Task Code: 1131413

Component: MERCURY VAPOR FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.5816 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF AND ON	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX AND TAPE ENDS	0.016600
4.DISASSEMBLE/REMOVE FIXTURES	0.090700
5.REMOVE AND UNPACK PARTS	0.030200
6.INSTALL MOUNTING BRACKETS	0.064300
7.ASSEMBLE AND HANG REFLECTOR	0.218600

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	127.0000
		127.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.447400	0.134220	0.581620
Material	Cost $	127.000000		127.000000
Equipment	Hours			0.581620

Components In This Task: 1131410

TASK DATA FORM

Task Code: 1131421

Component: METAL-HALIDE FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.6154 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL LOUVER	0.004100
2.REMOVE AND REINSTALL 1 TUBE	0.071200
3.REMOVE OLD/INSTALL NEW BALLAST	0.384000
4.TEST FIXTURE	0.014100

Material Resources

Description	Quantity	Unit Cost
BALLAST	1	65.0000
		65.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.473400	0.142020	0.615420
Material	Cost $	65.000000		65.000000
Equipment	Hours			0.615420

Components In This Task: 1131420

TASK DATA FORM

Task Code: 1131422

Component: METAL-HALIDE FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMP
Unit of Measure: COUNT Frequency of Occurrence: H: 3.00 A: 5.00 L: 8.00
Persons per Team: 1 Task Duration: 0.0686 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHANGE LAMP IN FIXTURE	0.052800

Material Resources

Description	Quantity	Unit Cost
LAMP	1	40.0000
		40.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.052800	0.015840	0.068640
Material	Cost $	40.000000		40.000000
Equipment	Hours			0.068640

Components In This Task: 1131420

TASK DATA FORM

Task Code: 1131423

Component: METAL-HALIDE FIXT. 175W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.4355 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF AND ON	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX AND TAPE ENDS	0.016600
4.DISASSEMBLE AND REMOVE FIXTURES	0.090700
5.REMOVE AND UNPACK PARTS	0.015400
6.INSTALL MOUNTING BRACKETS	0.032100
7.ASSEMBLE AND HANG FIXTURES	0.153200

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	186.0000
		186.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.335000	0.100500	0.435500
Material	Cost $	186.000000		186.000000
Equipment	Hours			0.435500

Components In This Task: 1131420

TASK DATA FORM

Task Code: 1131501

Component: EMERGENCY LIGHTING FIXT. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.3900 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE LENS	0.300000

Material Resources

Description	Quantity	Unit Cost
LENS	1	1.1600
		1.1600

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.300000	0.090000	0.390000
Material	Cost $	1.160000		1.160000
Equipment	Hours			0.390000

Components In This Task: 1131500

TASK DATA FORM

Task Code: 1131502

Component: EMERGENCY LIGHTING FIXT. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMP
Unit of Measure: COUNT Frequency of Occurrence: H: 3.00 A: 2.00 L: 3.00
Persons per Team: 1 Task Duration: 0.0686 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHANGE LAMP IN FIXTURES	0.052800

Material Resources

Description	Quantity	Unit Cost
LAMP	1	1.1400
		1.1400

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.052800	0.015840	0.068640
Material	Cost $	1.140000		1.140000
Equipment	Hours			0.068640

Components in This Task: 1131500

TASK DATA FORM

Task Code: 1131503

Component: EMERGENCY LIGHTING FIXT. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 3.1478 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF AND ON	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX AND TAPE ENDS	0.016600
4.DISASSEMBLE AND REMOVE FIXTURES	0.090700
5.INSTALL CONDUIT TO WALL	1.797000
6.MOUNT ADJACENT TO RECEPTACLE	0.490100

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	95.0000
		95.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.421400	0.726420	3.147820
Material	Cost $	95.000000		95.000000
Equipment	Hours			3.147820

Components In This Task: 1131500

TASK DATA FORM

Task Code: 1131611

Component: H.P. SODIUM FIXT. 250W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 2 Task Duration: 0.3077 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL LOUVER	0.004100
2.REMOVE AND REINSTALL 1 TUBE	0.071200
3.REMOVE OLD/INSTALL NEW BALLAST	0.384000
4.TEST FIXTURE	0.014100

Material Resources

Description	Quantity	Unit Cost
BALLAST	1	220.0000
		220.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.473400	0.142020	0.615420
Material	Cost $	220.000000		220.000000
Equipment	Hours			0.307710

Components In This Task: 1131610

TASK DATA FORM

Task Code: 1131612

Component: H.P. SODIUM FIXT. 250W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMP
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 2 Task Duration: 0.1002 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL FLOODLIGHT	0.154200

Material Resources

Description	Quantity	Unit Cost
LAMP	1	140.0000
		140.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.154200	0.046260	0.200460
Material	Cost $	140.000000		140.000000
Equipment	Hours			0.100230

Components In This Task: 1131610

TASK DATA FORM

Task Code: 1131613

Component: H.P. SODIUM FIXT. 250W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 2 Task Duration: 0.2243 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF AND ON	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX AND TAPE ENDS	0.016600
4.DISASSEMBLE AND REMOVE FIXTURES	0.090700
5.REMOVE AND UNPACK PARTS	0.015400
6.INSTALL MOUNTING BRACKETS	0.032100
7.ASSEMBLE AND HANG FIXTURES	0.163200

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	412.0000
		412.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.345000	0.103500	0.448500
Material	Cost $	412.000000		412.000000
Equipment	Hours			0.224250

Components In This Task: 1131610

TASK DATA FORM

Task Code: 1131621

Component: L.P. SODIUM FIXT. 200W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 2 Task Duration: 0.3077 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE AND REINSTALL LOUVER	0.004100
2.REMOVE AND REINSTALL 1 TUBE	0.071200
3.REMOVE OLD/REINSTALL BALLAST	0.384000
4.TEST FIXTURES	0.014100

Material Resources

Description	Quantity	Unit Cost
BALLAST	1	160.0000
		160.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.473400	0.142020	0.615420
Material	Cost $	160.000000		160.000000
Equipment	Hours			0.307710

Components In This Task: 1131620

TASK DATA FORM

Task Code: 1131622

Component: L.P. SODIUM FIXT. 200W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R REPLACE LAMP
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 2 Task Duration: 0.1002 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE/INSTALL LAMP	0.154200

Material Resources

Description	Quantity	Unit Cost
LAMP	1	25.0000
		25.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.154200	0.046260	0.200460
Material	Cost $	25.000000		25.000000
Equipment	Hours			0.100230

Components In This Task: 1131620

TASK DATA FORM

Task Code: 1131623

Component: L.P. SODIUM FIXT. 200W. System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 2 Task Duration: 0.2243 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN BRANCH CIRCUIT OFF AND ON	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX AND TAPE ENDS	0.016600
4.DISASSEMBLE AND REMOVE FIXTURES	0.090700
5.REMOVE AND UNPACK PARTS	0.015400
6.INSTALL MOUNTING BRACKETS	0.032100
7.ASSEMBLE AND HANG FIXTURES	0.163200

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	322.0000
		322.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.345000	0.103500	0.448500
Material	Cost $	322.000000		322.000000
Equipment	Hours			0.224250

Components In This Task: 1131620

TASK DATA FORM

Task Code: 1131701

Component: EXIT LIGHT System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 30.00
Persons per Team: 1 Task Duration: 0.3900 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE GLASS GLOBE	0.300000

Material Resources

Description	Quantity	Unit Cost
GLOBE	1	10.0000
		10.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.300000	0.090000	0.390000
Material	Cost $	10.000000		10.000000
Equipment	Hours			0.390000

Components In This Task: 1131700

TASK DATA FORM

Task Code: 1131702

Component: EXIT LIGHT System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: M/R LAMPS
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 5.00 L: 8.00
Persons per Team: 1 Task Duration: 0.0686 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHANGE LAMP	0.052800

Material Resources

Description	Quantity	Unit Cost
LAMP	1	4.5000
		4.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.052800	0.015840	0.068640
Material	Cost $	4.500000		4.500000
Equipment	Hours			0.068640

Components In This Task: 1131700

TASK DATA FORM

Task Code: 1131703

Component: EXIT LIGHT System: LIGHTING SYSTEM Subsystem: LIGHTING FIXTURES
Task Description: REPLACE REPLACE LIGHTING FIXTURE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.4485 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN CIRCUIT OFF/ON FOR FIXTURE	0.014100
2.INSTALL OUTLET BOX COVER PLATE	0.012900
3.CUT LEADS IN BOX/TAPE ENDS	0.016600
4.DISASSEMBLE/REMOVE FIXTURES	0.090700
5.REMOVE/UNPACK PARTS FOR FIXTURE	0.015400
6.INSTALL MOUNTING BRACKETS	0.032100
7.ASSEMBLE AND HANG FIXTURES	0.163200

Material Resources

Description	Quantity	Unit Cost
FIXTURE	1	12.7000
		12.7000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.345000	0.103500	0.448500
Material	Cost $	12.700000		12.700000
Equipment	Hours			0.448500

Components In This Task: 1131703

TASK DATA FORM

Task Code: 1141001

Component: ELECTRICAL SERVICE GROUND System: GROUNDING SYSTEM Subsystem: ELECTRICAL SERVICE GRD.
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 12.00 A: 25.00 L: 75.00
Persons per Team: 1 Task Duration: 1.0548 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR 1 STORAGE GROUNDING TERM	0.811400

Material Resources

Description	Quantity	Unit Cost
CLAMP	1	2.2200
		2.2200

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.811400	0.243420	1.054820
Material	Cost $	2.220000		2.220000
Equipment	Hours			1.054820

Components In This Task: 1141000

TASK DATA FORM

Task Code: 1141002

Component: ELECTRICAL SERVICE GROUND System: GROUNDING SYSTEM Subsystem: ELECTRICAL SERVICE GND.
Task Description: REPLACE REPLACE ELECTRICAL SERVICE GROUND
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 25.00 A: 50.00 L: 150.00
Persons per Team: 1 Task Duration: 11.9712 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.EXCAVATE HOLE FOR GROUND ROD	1.718400
2.DRIVE GROUND ROD INTO GROUND	1.855600
3.CONNECT GROUND WIRE TO ROD	0.224900
4.BACKFILL OVER TOP OF GROUND	0.828800
5.MATERIAL HANDLING	0.345300
6.PULL NO.6 TO NO.2 WIRES THROUGH	4.235600

Material Resources

Description	Quantity	Unit Cost
GR. ROD	10	16.0000
CLAMP	10	2.2200
WIRE(#6)	1000 FT	0.1200
		302.2000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	9.208600	2.762580	11.971180
Material	Cost $	302.200000		302.200000
Equipment	Hours			11.971180

Components In This Task: 1141000

TASK DATA FORM

Task Code: 1142001

Component: BUILDING STRUCTURE GROUND System: GROUNDING SYSTEM Subsystem: BLDG. STRUCTURE GROUND
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 4.00 A: 7.00 L: 21.00
Persons per Team: 1 Task Duration: 1.0548 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR 1 STORAGE GROUNDING TERM	0.811400

Material Resources

Description	Quantity	Unit Cost
CLAMP	1	2.2200
		2.2200

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.811400	0.243420	1.054820
Material	Cost $	2.220000		2.220000
Equipment	Hours			1.054820

Components In This Task: 1142000

TASK DATA FORM

Task Code: 1142002

Component: BUILDING STRUCTURE GROUND System: GROUNDING SYSTEM Subsystem: BLDG. STRUCTURE GROUND
Task Description: REPLACE REPLACE BUILDING SERVICE GROUND
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 75.00 A: 150.00 L: 300.00
Persons per Team: 1 Task Duration: 11.9712 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.EXCAVATE HOLE FOR GROUND ROD	1.718400
2.DRIVE GROUND ROD INTO GROUND	1.855600
3.CONNECT GROUND WIRE TO ROD	0.224900
4.BACKFILL OVER TOP OF GROUND	0.828800
5.MATERIAL HANDLING	0.345300
6.PULL NO.6 TO NO.2 WIRES THROUGH	4.235600

Material Resources

Description	Quantity	Unit Cost
GR. ROD	10	16.0000
CLAMP	10	2.2200
WIRE(#4)	1000FT	0.1800
		362.2000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	9.208600	2.762580	11.971180
Material	Cost $	362.200000		362.200000
Equipment	Hours			11.971180

Components In This Task: 1142000

TASK DATA FORM

Task Code: 1143111

Component: LIGHTNING PROTECTION SYS. System: GROUNDING SYSTEM Subsystem: LIGHTNING PROTECTION
Task Description: M/R MAINTENANCE AND REPAIR OF GENERAL WIRING
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 0.50 A: 1.00 L: 3.00
Persons per Team: 1 Task Duration: 1.0548 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR 1 STORAGE GROUNDING TERM	0.811400

Material Resources

Description	Quantity	Unit Cost
CONNECTION	1	3.5500
		3.5500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.811400	0.243420	1.054820
Material	Cost $	3.550000		3.550000
Equipment	Hours			1.054820

Components In This Task: 1143110

TASK DATA FORM

Task Code: 1143112

Component: LIGHTNING PROTECTION SYS. System: GROUNDING SYSTEM Subsystem: LIGHTNING PROTECTION
Task Description: REPLACE REPLACE LIGHTNING PROTECTION GENERAL WIRING
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 12.00 A: 25.00 L: 75.00
Persons per Team: 2 Task Duration: 5.7633 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.CUT/PULL WIRES NO.6 TO 2 OUT	1.174400
2.EXCAVATE HOLE FOR GROUND ROD	0.202000
3.DRIVE GROUND ROD INTO GROUND	1.855600
4.CONNECT GROUND WIRE TO ROD	0.224900
5.BACKFILL OVER TOP OF GROUND	0.828800
6.MATERIAL HANDLING	0.345300
7.PULL NO.6 TO NO.2 WIRES THRU	4.235600

Material Resources

Description	Quantity	Unit Cost
GR. ROD	10	16.0000
CADWELD	10	33.0000
WIRE(#4)	1000 FT	0.1800
AIR TERM.	10	1.7600
BASE	10	4.8100
		735.7000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	8.866600	2.659980	11.526580
Material	Cost $	735.700000		735.700000
Equipment	Hours			5.763290

Components In This Task: 1143110

TASK DATA FORM

Task Code: 1143511

Component: LIGHTNING GR. ROD System: GROUNDING SYSTEM Subsystem: LIGHTNING PROTECTION
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 1.00 L: 3.00
Persons per Team: 1 Task Duration: 1.0548 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR TERMINAL	0.811400

Material Resources

Description	Quantity	Unit Cost
CONNECTOR	1	3.5500
		3.5500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.811400	0.243420	1.054820
Material	Cost $	3.550000		3.550000
Equipment	Hours			1.054820

Components In This Task: 1143511

TASK DATA FORM

Task Code: 1143512

Component: LIGHTNING GR. ROD System: GROUNDING SYSTEM Subsystem: LIGHTNING PROTECTION
Task Description: REPLACE REPLACE LIGHTNING GROUND ROD
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 75.00
Persons per Team: 2 Task Duration: 1.3000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE GROUNDING ROD	2.000000

Material Resources

Description	Quantity	Unit Cost
ROD	1	9.8500
CONNECTOR	1	3.5500
		13.4000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.000000	0.600000	2.600000
Material	Cost $	13.400000		13.400000
Equipment	Hours			1.300000

Components In This Task: 1143510

TASK DATA FORM

Task Code: 1144001

Component: COMPUTER GROUND SYSTEM System: GROUNDING SYSTEM Subsystem: COMPUTER GROUND SYSTEM
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 2.00 A: 4.00 L: 12.00
Persons per Team: 1 Task Duration: 0.2638 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TEST BONDING OF GROUNDING SYS.	0.202900

Material Resources

Description	Quantity	Unit Cost
CONN	1	1.3600
		1.3600

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.202900	0.060870	0.263770
Material	Cost $	1.360000		1.360000
Equipment	Hours			0.263770

Components In This Task: 1144000

TASK DATA FORM

Task Code: 1144002

Component: COMPUTER GROUND SYSTEM System: GROUNDING SYSTEM Subsystem: COMPUTER GROUND SYSTEM
Task Description: REPLACE REPLACE COMPUTER GROUND SYSTEM
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 30.00 A: 60.00 L: 180.00
Persons per Team: 1 Task Duration: 7.0330 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.CUT/PULL WIRES NO.6 TO 2 OUT	1.174400
2.PULL NO.6 TO NO.2 WIRES THROUGH	4.235600

Material Resources

Description	Quantity	Unit Cost
WIRE(#8)	1000FT	0.0800
CONN.	10	1.3600
		93.6000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.410000	1.623000	7.033000
Material	Cost $	93.600000		93.600000
Equipment	Hours			7.033000

Components In This Task: 1144000

TASK DATA FORM

Task Code: 1145001

Component: SPECIAL GROUND SYSTEM System: GROUNDING SYSTEM Subsystem: SPECIAL GROUND SYSTEM
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 2.00 A: 4.00 L: 12.00
Persons per Team: 1 Task Duration: 0.2638 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.TEST BONDING OF GROUNDING SYS.	0.202900

Material Resources

Description	Quantity	Unit Cost
CONN	1	1.3600
		1.3600

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.202900	0.060870	0.263770
Material	Cost $	1.360000		1.360000
Equipment	Hours			0.263770

Components In This Task: 1145000

TASK DATA FORM

Task Code: 1145002

Component: SPECIAL GROUND SYSTEM System: GROUNDING SYSTEM Subsystem: SPECIAL GROUND SYSTEM
Task Description: REPLACE REPLACE SPECIAL GROUND SYSTEM
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 30.00 A: 60.00 L: 180.00
Persons per Team: 2 Task Duration: 3.5165 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.CUT/PULL WIRES NO.6 TO 2 OUT	1.174400
2.PULL NO.6 TO NO.2 WIRES THROUGH	4.235600

Material Resources

Description	Quantity	Unit Cost
WIRE(#8)	1000FT	0.0800
CONN	10	1.3600
		93.6000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	5.410000	1.623000	7.033000
Material	Cost $	93.600000		93.600000
Equipment	Hours			3.516500

Components In This Task: 1145000

TASK DATA FORM

Task Code: 1211101

Component: 4-PIN RECEPTACLE System: SOUND SYSTEM Subsystem: TELEPHONE SYSTEM
Task Description: M/R REPAIR 4-PIN RECEPTACLE
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.6006 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR RECEPTACLE	0.462000

Material Resources

Description	Quantity	Unit Cost
COVER	1	0.9000
		0.9000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	0.900000		0.900000
Equipment	Hours			0.600600

Components In This Task: 1211100

TASK DATA FORM

Task Code: 1211102

Component: 4-PIN RECEPTACLE System: SOUND SYSTEM Subsystem: TELEPHONE SYSTEM
Task Description: REPLACE REPLACE 4-PIN RECEPTACLE
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.8060 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE RECEPTACLE	0.620000

Material Resources

Description	Quantity	Unit Cost
RECEPTACLE	1	2.5700
		2.5700

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.620000	0.186000	0.806000
Material	Cost $	2.570000		2.570000
Equipment	Hours			0.806000

Components In This Task: 1211100

TASK DATA FORM

Task Code: 1211201

Component: TELEPHONE CABLE System: SOUND SYSTEM Subsystem: TELEPHONE SYSTEM
Task Description: M/R REPAIR CABLE ,22 AWG,4 PAIR
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 5.00 A: 8.00 L: 10.00
Persons per Team: 1 Task Duration: 0.5512 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CUT WIRES	0.062000
2.SPLICE AND INSULATE	0.362000

Material Resources

Description	Quantity	Unit Cost
THERMAL SLV.	6 IN	0.0100
TERMINAL	8	0.0300
TAPE	12 IN	0.0100
		0.4200

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.424000	0.127200	0.551200
Material	Cost $	0.420000		0.420000
Equipment	Hours			0.551200

Components In This Task: 1211200

TASK DATA FORM

Task Code: 1211202

Component: TELEPHONE CABLE System: SOUND SYSTEM Subsystem: TELEPHONE SYSTEM
Task Description: REPLACE REPLACE TELEPHONE CABLE ,22 AWG ,4 PAIR
Unit of Measure: 1000 LINEAR FEET Frequency of Occurrence: H: 25.00 A: 50.00 L: 100.00
Persons per Team: 2 Task Duration: 6.7737 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.SHUT OFF POWER	0.014000
2.REMOVE COVER PLATES	0.048000
3.REMOVE RECEPTACLES	0.216000
4.PULL WIRE SPLICES	0.006000
5.REMOVE TAPE	0.025000
6.CUT CONDUCTORS	0.019000
7.CUT CABLE	0.090000
8.REMOVE CABLE	0.032000
9.REMOVE STAPLES	1.613000
10.REMOVE BOXES	0.198000
11.RETAPE LEADS	0.006000
12.INSTALL COVER PLATES	0.012000
13.LADDER TIME	1.414000
14.INSTALL NEW BOXES	0.138000
15.INSTALL CABLE	4.960000
16.REMOVE BOX COVERS	0.012000
17.REMOVE PLUGS	0.111000
18.FASTEN CABLE	1.359000
19.MOVE WIRE SPLICES	0.008000
20.LADDER TIME	0.140000

Material Resources

Description	Quantity	Unit Cost
WIRE,22 AWG	1000 FT	0.2800
STAPLES	250	0.0100
		282.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	10.421000	3.126300	13.547300
Material	Cost $	282.500000		282.500000
Equipment	Hours			6.773650

Components In This Task: 1211200

TASK DATA FORM

Task Code: 1215001

Component: DOOR BELL System: SOUND SYSTEM Subsystem: DOOR BELL
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.6500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE TRANSFORMER	0.500000

Material Resources

Description	Quantity	Unit Cost
TRANSFORMER	1	8.0000
		8.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.500000	0.150000	0.650000
Material	Cost $	8.000000		8.000000
Equipment	Hours			0.650000

Components In This Task: 1215000

TASK DATA FORM

Task Code: 1215002

Component: DOOR BELL System: SOUND SYSTEM Subsystem: DOOR BELL
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.3250 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.CHECK OPERATION	0.250000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.250000	0.075000	0.325000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.325000

Components In This Task: 1215000

TASK DATA FORM

Task Code: 1215003

Component: DOOR BELL System: SOUND SYSTEM Subsystem: DOOR BELL
Task Description: REPLACE REPLACE DOOR BELL
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 3.2500 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE DOORBELL SYSTEM	2.500000

Material Resources

Description	Quantity	Unit Cost
BUTTON	1	4.5000
TRANS.	1	8.0000
BELL	1	24.5000
		37.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.500000	0.750000	3.250000
Material	Cost $	37.000000		37.000000
Equipment	Hours			3.250000

Components In This Task: 1215000

TASK DATA FORM

Task Code: 1221101

Component: MANUAL PULL STATION System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: M/R CHECK AND REPAIR MANUAL PULL STATION
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.5200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE GLASS ROD	0.400000

Material Resources

Description	Quantity	Unit Cost
GLASS ROD	1	0.7500
		0.7500

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.400000	0.120000	0.520000
Material	Cost $	0.750000		0.750000
Equipment	Hours			0.520000

Components In This Task: 1221100

TASK DATA FORM

Task Code: 1221102

Component: MANUAL PULL STATION System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: REPLACE REPLACE MANUAL PULL STATION
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 25.00
Persons per Team: 1 Task Duration: 0.2834 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN POWER SWITCH OFF AND ON	0.028000
2.REMOVE/INSTALL COVER PLATE	0.025000
3.REMOVE UNIT MTG. SCREWS	0.012000
4.PULL UNIT OUT OF BOX	0.013000
5.DISCONNECT WIRES	0.010000
6.TAPE WIRE ENDS	0.013000
7.UNPACK UNIT FROM CARTON	0.015000
8.ALIGN WIRES	0.019000
9.POSITION UNIT	0.012000
10.FASTEN UNIT TO BOX	0.012000
11.TEST OPERATION	0.011000
12.INSTALL COVER PLATE	0.012000
13.MATERIAL HANDLING	0.035000

Material Resources

Description	Quantity	Unit Cost
PULL STATION	1	38.0000
		38.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.218000	0.065400	0.283400
Material	Cost $	38.000000		38.000000
Equipment	Hours			0.283400

Components In This Task: 1221100

TASK DATA FORM

Task Code: 1221201

Component: SMOKE DETECTOR System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: M/R REPAIR SMOKE DETECTOR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.5200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE LAMP	0.400000

Material Resources

Description	Quantity	Unit Cost
LAMP	1	2.5000
		2.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.400000	0.120000	0.520000
Material	Cost $	2.500000		2.500000
Equipment	Hours			0.520000

Components In This Task: 1221200

TASK DATA FORM

Task Code: 1221202

Component: SMOKE DETECTOR System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: PM CHECK OPERATION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.1950 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK OPERATION	0.150000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.150000	0.045000	0.195000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.195000

Components In This Task: 1221500 1221200

TASK DATA FORM

Task Code: 1221203

Component: SMOKE DETECTOR System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: REPLACE REPLACE SMOKE DETECTOR
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 0.4147 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.UNPACK UNIT	0.030000
2.TURN CONTROL ON AND OFF	0.028000
3.REMOVE COVER PLATES	0.017000
4.TURN POWER OFF	0.060000
5.DISCONNECT LEADS	0.014000
6.REMOVE OLD INSTALL NEW	0.076000
7.CONNECT LEADS	0.057000
8.ADJUST UNIT	0.013000
9 INSTALL COVER	0.008000
10.CHECK OPERATION	0.016000

Material Resources

Description	Quantity	Unit Cost
DETECTOR	1	74.0000
		74.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.319000	0.095700	0.414700
Material	Cost $	74.000000		74.000000
Equipment	Hours			0.414700

Components In This Task: 1221200

TASK DATA FORM

Task Code: 1221301

Component: FIRE ALARM BELL System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: REPLACE REPLACE FIRE ALARM BELL ,6"
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 30.00
Persons per Team: 1 Task Duration: 0.2873 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.TURN POWER ON AND OFF	0.028000
2.REMOVE/INSTALL COVER PLATES	0.025000
3.REMOVE UNIT SCREWS	0.014000
4.REMOVE UNIT	0.013000
5.DISCONECT WIRES	0.010000
6.TAPE WIRES	0.013000
7.UNPACK UNIT	0.015000
8.CUT WIRES	0.020000
9.POSITION UNIT	0.013000
10.FASTEN UNIT TO BOX	0.012000
11.TEST OPERATION	0.011000
12.INSTALL COVER PLATE	0.012000
13.MATERIAL HANDLING	0.035000

Material Resources

Description	Quantity	Unit Cost
ALARM BELL	1	33.0000
		33.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.221000	0.066300	0.287300
Material	Cost $	33.000000		33.000000
Equipment	Hours			0.287300

Components In This Task: 1221300

TASK DATA FORM

Task Code: 1221401

Component: ANNUNCIATION PANEL System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: M/R MINOR REPAIRS TO ANNUNCIATION PANEL
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 5.00 L: 8.00
Persons per Team: 1 Task Duration: 0.4082 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK COMPONENTS	0.126000
2.TEST PARTS	0.045000
3.REMOVE/INSTALL NEW PARTS	0.143000

Material Resources

Description	Quantity	Unit Cost
RELAY	1	25.0000
		25.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.314000	0.094200	0.408200
Material	Cost $	25.000000		25.000000
Equipment	Hours			0.408200

Components In This Task: 1221400

TASK DATA FORM

Task Code: 1221402

Component: ANNUNCIATION PANEL System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.5200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK PANEL,PULL STATIONS/BELLS	0.400000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.400000	0.120000	0.520000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.520000

Components In This Task: 1221400

TASK DATA FORM

Task Code: 1221403

Component: ANNUNCIATION PANEL System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: REPLACE REPLACE ANNUNCIATION PANEL
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 25.00
Persons per Team: 1 Task Duration: 1.7615 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER	0.035000
2.DISCONNECT LEADS	0.056000
3.REMOVE LINE CONDUCTOR	0.036000
4.REMOVE LOCK NUTS FROM CONDUIT	0.009000
5.REMOVE BUSHING	0.011000
6.LOOSEN NUTS	0.014000
7.STRAIGHTEN WIRES	0.121000
8.REMOVE PANEL	0.040000
9.MOUNT PANEL	0.639000
10.SET WIRES	0.042000
11.INSTALL CONNECTORS	0.067000
12.CONNECT WIRES	0.229000
13.TEST CIRCUITS	0.056000

Material Resources

Description	Quantity	Unit Cost
PANEL	1	300.0000
		300.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.355000	0.406500	1.761500
Material	Cost $	300.000000		300.000000
Equipment	Hours			1.761500

Components In This Task: 1221400

TASK DATA FORM

Task Code: 1221501

Component: HEAT DETECTOR System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: REPAIR REPAIR HEAT DETECTOR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.5200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE ELEMENT	0.400000

Material Resources

Description	Quantity	Unit Cost
ELEMENT	1	4.5000
		4.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.400000	0.120000	0.520000
Material	Cost $	4.500000		4.500000
Equipment	Hours			0.520000

Components In This Task: 1221500

TASK DATA FORM

Task Code: 1221502

Component: HEAT DETECTOR System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: PM CHECK OPERATION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.1950 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK OPERATION	0.150000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.150000	0.045000	0.195000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.195000

Components In This Task: 1221500 1221200

TASK DATA FORM

Task Code: 1221503

Component: HEAT DETECTOR System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: REPLACE REPLACE HEAT DETECTOR
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 0.4147 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.UNPACK UNIT	0.030000
2.TURN CONTROL ON AND OFF	0.028000
3.REMOVE COVER PLATES	0.017000
4.TURN POWER OFF	0.060000
5.DISCONNECT LEADS	0.014000
6.REMOVE OLD INSTALL NEW	0.076000
7.CONNECT LEADS	0.057000
8.ADJUST UNIT	0.013000
9.INSTALL COVER	0.008000
10.CHECK OPERATION	0.016000

Material Resources

Description	Quantity	Unit Cost
DETECTOR	1	19.0000
		19.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.319000	0.095700	0.414700
Material	Cost $	19.000000		19.000000
Equipment	Hours			0.414700

Components In This Task: 1221500

TASK DATA FORM

Task Code: 1221601

Component: FIRE ALARM CONT. PANEL System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: M/R MINOR REPAIRS TO FIRE ALARM
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 5.00 L: 8.00
Persons per Team: 1 Task Duration: 0.4082 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK COMPONENTS	0.126000
2.TEST PARTS	0.045000
3.REMOVE/INSTALL NEW PARTS	0.143000

Material Resources

Description	Quantity	Unit Cost
RELAY	1	25.0000
		25.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.314000	0.094200	0.408200
Material	Cost $	25.000000		25.000000
Equipment	Hours			0.408200

Components In This Task: 1221600

TASK DATA FORM

Task Code: 1221602

Component: FIRE ALARM CONT. PANEL System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.5200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK PANEL,PULL STATIONS/BELLS	0.400000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.400000	0.120000	0.520000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.520000

Components In This Task: 1221400 1221600

TASK DATA FORM

Task Code: 1221603

Component: FIRE ALARM CONT. PANEL System: ALARM SYSTEM Subsystem: FIRE ALARM SYSTEM
Task Description: REPLAC REPLACE FIRE ALARM PANEL
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 25.00
Persons per Team: 1 Task Duration: 1.7615 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER	0.035000
2.DISCONNECT LEADS	0.056000
3.REMOVE LINE CONDUCTOR	0.036000
4.REMOVE LOCK NUTS FROM CONDUIT	0.009000
5.REMOVE BUSHING	0.011000
6.LOOSEN NUTS	0.014000
7.STRAIGHTEN WIRES	0.121000
8.REMOVE PANEL	0.040000
9.MOUNT PANEL	0.639000
10.SET WIRES	0.042000
11.INSTALL CONNECTORS	0.067000
12.CONNECT WIRES	0.229000
13.TEST CIRCUITS	0.056000

Material Resources

Description	Quantity	Unit Cost
PANEL	1	800.0000
		800.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.355000	0.406500	1.761500
Material	Cost $	800.000000		800.000000
Equipment	Hours			1.761500

Components In This Task: 1221600

TASK DATA FORM

Task Code: 1233001

Component: TV CABLE OUTLET System: TELEVISION SYSTEM Subsystem: TELEVISION SYSTEM
Task Description: M/R TV CABLE OUTLET
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 20.00
Persons per Team: 1 Task Duration: 0.[illegible]96 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task C[illegible]ification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR RECEPTACLE	0.462000

Material Resources

Description	Quantity	Unit Cost
COVER	1	0.9000
		0.9000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	0.900000		0.900000
Equipment	Hours			0.600600

Components In This Task: 1233000

TASK DATA FORM

Task Code: 1233002

Component: TV CABLE OUTLET System: TELEVISION SYSTEM Subsystem: TELEVISION SYSTEM
Task Description: REPLACE REPLACE TV CABLE OUTLET
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 0.8060 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE RECEPTACLE	0.620000

Material Resources

Description	Quantity	Unit Cost
RECEPTACLE	1	12.5000
		12.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.620000	0.186000	0.806000
Material	Cost $	12.500000		12.500000
Equipment	Hours			0.806000

Components In This Task: 1233000

TASK DATA FORM

Task Code: 1243001

Component: LIGHT DIMMING PANEL System: CONTROL SYSTEM Subsystem: CONTROL SYSTEM
Task Description: M/R MINOR REPAIRS TO LIGHT DIMMING PANEL
Unit of Measure: COUNT Frequency of Occurrence: H: 2.00 A: 5.00 L: 8.00
Persons per Team: 1 Task Duration: 0.4082 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK COMPONENTS	0.126000
2.TEST PARTS	0.045000
3.REMOVE/INSTALL NEW PARTS	0.143000

Material Resources

Description	Quantity	Unit Cost
REOSTAT	1	35.0000
		35.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.314000	0.094200	0.408200
Material	Cost $	35.000000		35.000000
Equipment	Hours			0.408200

Components In This Task: 1243000

TASK DATA FORM

Task Code: 1243002

Component: LIGHT DIMMING PANEL System: CONTROL SYSTEM Subsystem: CONTROL SYSTEM
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.3250 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CHECK PANEL	0.250000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.250000	0.075000	0.325000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.325000

Components In This Task: 1243000

TASK DATA FORM

Task Code: 1243003

Component: LIGHT DIMMING PANEL System: CONTROL SYSTEM Subsystem: CONTROL SYSTEM
Task Description: REPLACE REPLACE LIGHT DIMMING PANEL
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 25.00
Persons per Team: 1 Task Duration: 1.7615 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER	0.035000
2.DISCONNECT LEADS	0.056000
3.REMOVE LINE CONDUCTOR	0.036000
4.REMOVE LOCK NUTS FROM CONDUIT	0.009000
5.REMOVE BUSHING	0.011000
6.LOOSEN NUTS	0.014000
7.STRAIGHTEN WIRES	0.121000
8.REMOVE PANEL	0.040000
9.MOUNT PANEL	0.639000
10.SET WIPES	0.042000
11.INSTALL CONNECTORS	0.067000
12.CONNECT WIRES	0.229000
13.TEST CIRCUITS	0.056000

Material Resources

Description	Quantity	Unit Cost
PANEL	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.355000	0.406500	1.761500
Material	Cost $	250.000000		250.000000
Equipment	Hours			1.761500

Components In This Task: 1243000

TASK DATA FORM

Task Code: 1261101

Component: TIME CONTROL CLOCK System: TIME SYSTEMS Subsystem: CLOCK & PROGRAM SYSTEM
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 1.3000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CLOCK MOTOR	1.000000

Material Resources

Description	Quantity	Unit Cost
MOTOR	1	12.5000
		12.5000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.000000	0.300000	1.300000
Material	Cost $	12.500000		12.500000
Equipment	Hours			1.300000

Components In This Task: 1261100

TASK DATA FORM

Task Code: 1261102

Component: TIME CONTROL CLOCK System: TIME SYSTEMS Subsystem: CLOCK & PROGRAM SYSTEM
Task Description: PM CHECK OPERATION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 0.3250 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
T.CHECK OPERATION	0.250000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.250000	0.075000	0.325000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.325000

Components In This Task: 1261100

TASK DATA FORM

Task Code: 1261103

Component: TIME CONTROL CLOCK System: TIME SYSTEMS Subsystem: CLOCK & PROGRAM SYSTEM
Task Description: REPLACE REPLACE TIME CONTROL CLOCK
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 1.5600 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
T.REPLACE CONTROL CLOCK	1.200000

Material Resources

Description	Quantity	Unit Cost
CLOCK	1	58.7000
		58.7000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.200000	0.360000	1.560000
Material	Cost $	58.700000		58.700000
Equipment	Hours			1.560000

Components In This Task: 1261100

TASK DATA FORM

Task Code: 1271001

Component: BASEBOARD HEATING UNITS System: ELECTIC HEATING SYSTEM Subsystem: BASEBOARD HEATING UNIT.
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 2.00 L: 4.00
Persons per Team: 1 Task Duration: 0.6006 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR WIRING CONNECTION	0.462000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.600600

Components In This Task: 1271000

TASK DATA FORM

Task Code: 1271002

Component: BASEBOARD HEATING UNITS System: ELECTIC HEATING SYSTEM Subsystem: BASEBOARD HEATING UNIT.
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 1.0998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT AND CLEAN BASE HEATER	0.846000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.846000	0.253800	1.099800
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.099800

Components In This Task: 1271000

TASK DATA FORM

Task Code: 1271003

Component: BASEBOARD HEATING UNITS System: ELECTIC HEATING SYSTEM Subsystem: BASEBOARD HEATING UNIT.
Task Description: REPLACE REPLACE BASEBOARD HEATER
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 30.00
Persons per Team: 1 Task Duration: 2.4999 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE ELECTRIC HEATER	1.923000

Material Resources

Description	Quantity	Unit Cost
FIN. TUBE	4F	56.0000
		224.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.923000	0.576900	2.499900
Material	Cost $	224.000000		224.000000
Equipment	Hours			2.499900

Components In This Task: 1271000

TASK DATA FORM

Task Code: 1272101

Component: WALL MTD./RECESS.,WITH FAN System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 3.00 A: 5.00 L: 7.00
Persons per Team: 1 Task Duration: 0.9750 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE FAN	0.750000

Material Resources

Description	Quantity	Unit Cost
FAN	1	35.0000
		35.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.750000	0.225000	0.975000
Material	Cost $	35.000000		35.000000
Equipment	Hours			0.975000

Components In This Task:

TASK DATA FORM

Task Code: 1272102

Component: WALL MTD./RECESS.,WITH FAN System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 1.00 L: 1.00
Persons per Team: 1 Task Duration: 1.0998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECTION OF WALL FAN HEATER	0.846000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.846000	0.253800	1.099800
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.099800

Components In This Task: 1272100

TASK DATA FORM

Task Code: 1272103

Component: WALL MTD./RECESS.,WITH FAN System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: REPLACE REPLACE HEATER
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 2.4999 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE HEATER WITH FAN	1.923000

Material Resources

Description	Quantity	Unit Cost
HEATER	1	130.0000
		130.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.923000	0.576900	2.499900
Material	Cost $	130.000000		130.000000
Equipment	Hours			2.499900

Components In This Task: 1272100

TASK DATA FORM

Task Code: 1272201

Component: RADIANT SUSPENDED, COMM. System: EL_CTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 2.00 L: 4.00
Persons per Team: 1 Task Duration: 0.6006 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR WIRING CONNECTIONS	0.462000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.600600

Components In This Task: 1272200

TASK DATA FORM

Task Code: 1272202

Component: RADIANT SUSPENDED, COMM. System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 1.0998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECTION AND PM OF HEATER	0.846000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.846000	0.253800	1.099800
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.099800

Components In This Task: 1272200

TASK DATA FORM

Task Code: 1272203

Component: RADIANT SUSPENDED, COMM. System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: REPLACE REPLACE HEATER
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 2.4999 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE RADIANT HEATER	1.923000

Material Resources

Description	Quantity	Unit Cost
HEATER	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.923000	0.576900	2.499900
Material	Cost $	250.000000		250.000000
Equipment	Hours			2.499900

Components In This Task: 1272200

TASK DATA FORM

Task Code: 1272301

Component: INFARED SUSPENDED, COMM. System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 1.00 L: 2.00
Persons per Team: 1 Task Duration: 0.6006 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPAIR WIRING CONNECTIONS	0.462000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.600600

Components In This Task: 1272300

TASK DATA FORM

Task Code: 1272302

Component: INFARED SUSPENDED, COMM. System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 1.0998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECTION AND PM OF IR HEATER	0.846000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.846000	0.253800	1.099800
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.099800

Components In This Task: 1272300

TASK DATA FORM

Task Code: 1272303

Component: INFARED SUSPENDED, COMM. System: ELECTIC HEATING SYSTEM Subsystem: WALL AND CEILING HEATERS
Task Description: REPLACE REPLACE IR HEATER
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 2.4999 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE IR HEATER.	1.923000

Material Resources

Description	Quantity	Unit Cost
IR HEATER	1	159.0000
		159.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.923000	0.576900	2.499900
Material	Cost $	159.000000		159.000000
Equipment	Hours			2.499900

Components In This Task: 1272300

TASK DATA FORM

Task Code: 1273101

Component: STANDARD SUSPENDED HEATER System: ELECTIC HEATING SYSTEM Subsystem: INDUSTRIAL HEATERS.
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 2.00 L: 4.00
Persons per Team: 1 Task Duration: 0.6006 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CONTACTOR	0.462000

Material Resources

Description	Quantity	Unit Cost
CONTACTOR	1	25.0000
		25.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	25.000000		25.000000
Equipment	Hours			0.600600

Components In This Task: 1273100

TASK DATA FORM

Task Code: 1273102

Component: STANDARD SUSPENDED HEATER System: ELECTIC HEATING SYSTEM Subsystem: INDUSTRIAL HEATERS.
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 1.0998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECTION AND PM OF HEATER	0.846000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.846000	0.253800	1.099800
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.099800

Components In This Task: 1273100

TASK DATA FORM

Task Code: 1273103

Component: STANDARD SUSPENDED HEATER System: ELECTIC HEATING SYSTEM Subsystem: INDUSTRIAL HEATERS.
Task Description: REPLACE REPLACE HEATER
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 2.4999 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE STANDARD HEATER	1.923000

Material Resources

Description	Quantity	Unit Cost
HEATER	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.923000	0.576900	2.499900
Material	Cost $	250.000000		250.000000
Equipment	Hours			2.499900

Components In This Task: 1273100

TASK DATA FORM

Task Code: 1273201

Component: EXPLOSION PROOF INDUSTRIAL System: ELECTIC HEATING SYSTEM Subsystem: INDUSTRIAL HEATERS.
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 2.00 L: 4.00
Persons per Team: 1 Task Duration: 0.6006 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CONTACTOR	0.462000

Material Resources

Description	Quantity	Unit Cost
CONTACTOR	1	50.0000
		50.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	50.000000		50.000000
Equipment	Hours			0.600600

Components In This Task: 1273200

TASK DATA FORM

Task Code: 1273202

Component: EXPLOSION PROOF INDUSTRIAL System: ELECTIC HEATING SYSTEM Subsystem: INDUSTRIAL HEATERS.
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 1.0998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT/PM OF EXPLOSION HEATER	0.846000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.846000	0.253800	1.099800
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.099800

Components In This Task: 1273200

TASK DATA FORM

Task Code: 1273203

Component: EXPLOSION PROOF INDUSTRIAL System: ELECTIC HEATING SYSTEM Subsystem: INDUSTRIAL HEATERS.
Task Description: REPLACE REPLACE HEATER
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 2.4999 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE EXPLOSION PROOF HEATER	1.923000

Material Resources

Description	Quantity	Unit Cost
HEATER	1	500.0000
		500.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.923000	0.576900	2.499900
Material	Cost $	500.000000		500.000000
Equipment	Hours			2.499900

Components In This Task: 1273200

TASK DATA FORM

Task Code: 1274001

Component: DUCT HEATER System: ELECTIC HEATING SYSTEM Subsystem: DUCT HEATER
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 1.00 L: 2.00
Persons per Team: 1 Task Duration: 0.6006 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE CONTACTOR	0.462000

Material Resources

Description	Quantity	Unit Cost
CONTACTOR	1	50.0000
		50.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.462000	0.138600	0.600600
Material	Cost $	50.000000		50.000000
Equipment	Hours			0.600600

Components In This Task: 1274000

TASK DATA FORM

Task Code: 1274002

Component: DUCT HEATER System: ELECTIC HEATING SYSTEM Subsystem: DUCT HEATER
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 1.0998 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: O

Labor Resources

Subtask Description	Labor Hrs
1.INSPECPTION & PM OF DUCT HEATER	0.846000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.846000	0.253800	1.099800
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.099800

Components In This Task: 1274000

TASK DATA FORM

Task Code: 1274003

Component: DUCT HEATER System: ELECTIC HEATING SYSTEM Subsystem: DUCT HEATER
Task Description: REPLACE REPLACE DUCT HEATER
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 20.00
Persons per Team: 1 Task Duration: 2.4999 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE DUCT HEATER.	1.923000

Material Resources

Description	Quantity	Unit Cost
DUCT HTR	1	263.0000
		263.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.923000	0.576900	2.499900
Material	Cost $	263.000000		263.000000
Equipment	Hours			2.499900

Components In This Task: 1274000

TASK DATA FORM

Task Code: 1281102

Component: GEN.,GASOLINE,1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.08 A: 0.08 L: 0.08
Persons per Team: 1 Task Duration: 0.7995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.ELECTRICAL TESTING	0.615000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.615000	0.184500	0.799500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.799500

Components In This Task: 1281100

TASK DATA FORM

Task Code: 1281103

Component: GEN.,GASOLINE,1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: REPLACE REPLACE GENERATOR COMPONENT
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 2 Task Duration: 140.0100 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE GASOLINE GENERATOR	215.400000

Material Resources

Description	Quantity	Unit Cost
GENERATOR	1	200000.0000
		200000.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	215.400000	64.620000	280.020000
Material	Cost $	200000.000000		200000.000000
Equipment	Hours			140.010000

Components In This Task: 1281100

TASK DATA FORM

Task Code: 1281202

Component: GENERATOR, DIESEL, 1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.08 A: 0.08 L: 0.08
Persons per Team: 1 Task Duration: 0.7995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.ELECTRICAL TESTING	0.615000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.615000	0.184500	0.799500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.799500

Components In This Task: 1281200

TASK DATA FORM

Task Code: 1281203

Component: GENERATOR, DIESEL, 1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: REPLACE REPLACE DIESEL GENERATOR COMPONENT
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 4 Task Duration: 70.0050 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE DIESEL GENERATOR	215.400000

Material Resources

Description	Quantity	Unit Cost
GENERATOR	1	200000.0000
		200000.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	215.400000	64.620000	280.020000
Material	Cost $	200000.000000		200000.000000
Equipment	Hours			70.005000

Components In This Task: 1281200

TASK DATA FORM

Task Code: 1281302

Component: GEN., VAPOR GAS, 1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.08 A: 0.08 L: 0.08
Persons per Team: 1 Task Duration: 0.7995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.ELECTRICAL TESTING	0.615000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.615000	0.184500	0.799500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.799500

Components In This Task: 1281300

TASK DATA FORM

Task Code: 1281303

Component: GEN., VAPOR GAS, 1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: REPLACE REPLACE GENERATOR COMPONENT
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 4 Task Duration: 70.0050 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE VAPOR POWERED GEN.	215.400000

Material Resources

Description	Quantity	Unit Cost
GENERATOR	1	200000.0000
		200000.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	215.400000	64.620000	280.020000
Material	Cost $	200000.000000		200000.000000
Equipment	Hours			70.005000

Components In This Task: 1281300

TASK DATA FORM

Task Code: 1281412

Component: GEN., STEAM TURBINE,1000KW System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.08 A: 0.08 L: 0.08
Persons per Team: 1 Task Duration: 0.7995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.ELECTRICAL TESTING	0.615000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.615000	0.184500	0.799500
Materia.	Cost $	0.000000		0.000000
Equipment	Hours			0.799500

Components In This Task: 1281410

TASK DATA FORM

Task Code: 1281413

Component: GEN., STEAM TURBINE,1000KW System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: REPLACE REPLACE GENERATOR COMPONENT
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 4 Task Duration: 50.2450 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE STEAM TURBINE GEN.	154.600000

Material Resources

Description	Quantity	Unit Cost
GENERATOR	1	250000.0000
		250000.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	154.600000	46.380000	200.980000
Material	Cost $	250000.000000		250000.000000
Equipment	Hours			50.245000

Components In This Task: 1281410

TASK DATA FORM

Task Code: 1281422

Component: GEN., GAS TURBINE, 1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.08 A: 0.08 L: 0.08
Persons per Team: 1 Task Duration: 0.7995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.ELECTRICAL TESTING	0.615000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.615000	0.184500	0.799500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.799500

Components In This Task: 1281420

TASK DATA FORM

Task Code: 1281423

Component: GEN., GAS TURBINE, 1000KW. System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: REPLACE REPLACE GENERATOR COMPONENT
Unit of Measure: COUNT Frequency of Occurrence: H: 12.00 A: 25.00 L: 50.00
Persons per Team: 2 Task Duration: 200.0050 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE GAS TURBINE GEN.	307.700000

Material Resources

Description	Quantity	Unit Cost
GENERATOR	1	250000.0000
		250000.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	307.700000	92.310000	400.010000
Material	Cost $	250000.000000		250000.000000
Equipment	Hours			200.005000

Components In This Task: 1281420

TASK DATA FORM

Task Code: 1281501

Component: TRANSFER SWITCH System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 3.00 A: 5.00 L: 10.00
Persons per Team: 1 Task Duration: 2.6000 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE COIL	2.000000

Material Resources

Description	Quantity	Unit Cost
COIL	1	15.0000
		15.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.000000	0.600000	2.600000
Material	Cost $	15.000000		15.000000
Equipment	Hours			2.600000

Components In This Task: 1281500

TASK DATA FORM

Task Code: 1281502

Component: TRANSFER SWITCH System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: PM .PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.50 A: 0.50 L: 0.50
Persons per Team: 1 Task Duration: 0.2080 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.INSPECT/CLEAN CONTACTS AND COIL	0.160000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.160000	0.048000	0.208000
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.208000

Components In This Task: 1281500

TASK DATA FORM

Task Code: 1281503

Component: TRANSFER SWITCH System: POWER GENERATION SYSTEM Subsystem: ENGINE GENERATOR SETS
Task Description: REPLACE REPLACE TRANSFER SWITCH
Unit of Measure: COUNT Frequency of Occurrence: H: 9.00 A: 18.00 L: 36.00
Persons per Team: 1 Task Duration: 0.7502 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REMOVE COVER PLATE	0.035300
2.DISCONNECT CONDUCTORS	0.028800
3.REMOVE SWITCH UNIT FROM CASING	0.048900
4.LOOSEN LOCKNUTS ON CONDUIT	0.017400
5.REMOVE LOCKNUTS FROM CONDUIT	0.021800
6.STRAIGHTEN CIRCUIT WIRES	0.033300
7.REMOVE ONE HOLE CLAMP OR CLIP	0.021800
8.REMOVE CASING FROM SURFACE	0.040500
9.MOUNT SWITCH CASING	0.134900
10.REMOVE SWITCH UNIT	0.015400
11.INSTALL BREAKER UNIT TO CASING	0.048900
12.CUT,FORM,ALIGN,CONNECT WIRES	0.116000
13.CHECK OPERATION OF SWITCH	0.014100

Material Resources

Description	Quantity	Unit Cost
TRANS. SW.	1	442.0000
		442.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.577100	0.173130	0.750230
Material	Cost $	442.000000		442.000000
Equipment	Hours			0.750230

Components In This Task: 1281500

TASK DATA FORM

Task Code: 1282101

Component: STATIC - CHARGER, BATTERY System: POWER GENERATION SYSTEM Subsystem: UNINTERRUPT.POWER SOURCE
Task Description: M/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 1.00 A: 2.00 L: 4.00
Persons per Team: 1 Task Duration: 3.1200 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources		Material Resources		
Subtask Description	Labor Hrs	Description	Quantity	Unit Cost
1.REPAIR STATIC-CHARGER.	2.400000	COMPONENT	1	23.0000
				23.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	2.400000	0.720000	3.120000
Material	Cost $	23.000000		23.000000
Equipment	Hours			3.120000

Components In This Task: 1282100

TASK DATA FORM

Task Code: 1282102

Component: STATIC - CHARGER, BATTERY System: POWER GENERATION SYSTEM Subsystem: UNINTERRUPT.POWER SOURCE
Task Description: PM PREVENTIVE MAINTENANCE AND INSPECTION
Unit of Measure: COUNT Frequency of Occurrence: H: 0.33 A: 0.33 L: 0.33
Persons per Team: 1 Task Duration: 1.6900 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources		Material Resources		
Subtask Description	Labor Hrs	Description	Quantity	Unit Cost
1.CHECK CONTROLS,CONN. AND RELAYS	1.300000			0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.300000	0.390000	1.690000
Material	Cost $	0.000000		0.000000
Equipment	Hours			1.690000

Components In This Task: 1282100

TASK DATA FORM

Task Code: 1282103

Component: STATIC - CHARGER, BATTERY System: POWER GENERATION SYSTEM Subsystem: UNINTERRUPT.POWER SOURCE
Task Description: REPLACE REPLACE CHARGER
Unit of Measure: COUNT Frequency of Occurrence: H: 10.00 A: 20.00 L: 40.00
Persons per Team: 1 Task Duration: 2.0995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE STATIC-CHARGER BATTERYD	1.615000

Material Resources

Description	Quantity	Unit Cost
CHARGER	1	563.0000
		563.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	1.615000	0.484500	2.099500
Material	Cost $	563.000000		563.000000
Equipment	Hours			2.099500

Components In This Task: 1282100

TASK DATA FORM

Task Code: 1282201

Component: MOTOR - GENERATOR, BATTERY System: POWER GENERATION SYSTEM Subsystem: UNINTERRUPT.POWER SOURCE
Task Description: H/R MAINTENANCE AND REPAIR
Unit of Measure: COUNT Frequency of Occurrence: H: 0.20 A: 0.33 L: 1.00
Persons per Team: 1 Task Duration: 0.9997 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE BRUSHES	0.769000

Material Resources

Description	Quantity	Unit Cost
BRUSHES	2	9.5000
		19.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.769000	0.230700	0.999700
Material	Cost $	19.000000		19.000000
Equipment	Hours			0.999700

Components In This Task: 1282200

TASK DATA FORM

Task Code: 1282202

Component: MOTOR - GENERATOR, BATTERY System: POWER GENERATION SYSTEM Subsystem: UNINTERRUPT.POWER SOURCE
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.17 A: 0.17 L: 0.17
Persons per Team: 1 Task Duration: 0.7995 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources		Material Resources		
Subtask Description	Labor Hrs	Description	Quantity	Unit Cost
1.ELECTRICAL TESTING	0.615000			0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.615000	0.184500	0.799500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.799500

Components In This Task: 1282200

TASK DATA FORM

Task Code: 1282203

Component: MOTOR - GENERATOR, BATTERY System: POWER GENERATION SYSTEM Subsystem: UNINTERRUPT.POWER SOURCE
Task Description: REPLACE REPLACE MOTOR GENERATOR
Unit of Measure: COUNT Frequency of Occurrence: H: 8.00 A: 15.00 L: 30.00
Persons per Team: 1 Task Duration: 5.3300 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources		Material Resources		
Subtask Description	Labor Hrs	Description	Quantity	Unit Cost
1.REPLACE MOTOR GENERATOR	4.100000	MTR. GEN.	1	171.0000
				171.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	4.100000	1.230000	5.330000
Material	Cost $	171.000000		171.000000
Equipment	Hours			5.330000

Components In This Task: 1282200

TASK DATA FORM

Task Code: 1283101

Component: BATTERY, PRIMARY WET System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.02 A: 0.02 L: 0.02
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CLEAN TERMINALS,ADD WATER,TEST	0.385000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.500500

Components In This Task: 1283100

TASK DATA FORM

Task Code: 1283102

Component: BATTERY, PRIMARY WET System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: REPLACE REPLACE BATTERY
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.3991 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE WET CELL PRIMARY BATT.	0.307000

Material Resources

Description	Quantity	Unit Cost
BATTERY	1	250.0000
		250.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.307000	0.092100	0.399100
Material	Cost $	250.000000		250.000000
Equipment	Hours			0.399100

Components In This Task: 1283100

TASK DATA FORM

Task Code: 1283201

Component: BATTERY, PRIMARY DRY System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: PM PREVENTIVE MAINTENANCE
Unit of Measure: COUNT Frequency of Occurrence: H: 0.08 A: 0.08 L: 0.08
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CLEAN TERMINALS, AND TEST CELLS	0.385000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.500500

Components In This Task: 1283200

TASK DATA FORM

Task Code: 1283202

Component: BATTERY, PRIMARY DRY System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: REPLACE REPLACE BATTERY
Unit of Measure: COUNT Frequency of Occurrence: H: 3.00 A: 5.00 L: 10.00
Persons per Team: 1 Task Duration: 0.3991 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE DRY PRIMARY BATTERY	0.307000

Material Resources

Description	Quantity	Unit Cost
BATTERY	1	50.0000
		50.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.307000	0.092100	0.399100
Material	Cost $	50.000000		50.000000
Equipment	Hours			0.399100

Components In This Task: 1283200

TASK DATA FORM

Task Code: 1283301

Component: BATTERY, SECONDARY WET System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: PREVENTIVE MAINT. BATTERY SECONDARY WET
Unit of Measure: COUNT Frequency of Occurrence: H: 0.02 A: 0.02 L: 0.02
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CLEAN TERMINALS, ADD WATER TEST	0.385000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.500500

Components In This Task: 1283300

TASK DATA FORM

Task Code: 1283302

Component: BATTERY, SECONDARY WET System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: REPLACE REPLACE BATTERY, SECONDARY WET
Unit of Measure: COUNT Frequency of Occurrence: H: 5.00 A: 10.00 L: 15.00
Persons per Team: 1 Task Duration: 0.3991 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE WET CELL,SECONDARY BATT	0.307000

Material Resources

Description	Quantity	Unit Cost
BATTERY,WET	1	350.0000
		350.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.307000	0.092100	0.399100
Material	Cost $	350.000000		350.000000
Equipment	Hours			0.399100

Components In This Task: 1283300

TASK DATA FORM

Task Code: 1401

Component: BATTERY, SECONDARY DRY System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: PM PREVENTIVE MAINT. BATTERY SECONDARY DRY
Unit of Measure: COUNT Frequency of Occurrence: H: 0.08 A: 0.08 L: 0.08
Persons per Team: 1 Task Duration: 0.5005 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 0

Labor Resources

Subtask Description	Labor Hrs
1.CLEAN TERMINALS,AND TEST CELLS	0.385000

Material Resources

Description	Quantity	Unit Cost
		0.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.385000	0.115500	0.500500
Material	Cost $	0.000000		0.000000
Equipment	Hours			0.500500

Components In This Task: 1283400

TASK DATA FORM

Task Code: 1283402

Component: BATTERY, SECONDARY DRY System: POWER GENERATION SYSTEM Subsystem: EMERGENCY BATTERY SYS.
Task Description: REPLACE REPLACE BATTERY, SECONDARY DRY
Unit of Measure: COUNT Frequency of Occurrence: H: 3.00 A: 5.00 L: 10.00
Persons per Team: 1 Task Duration: 0.3991 hours Once every (H,A,L) years
Trade: ELECTRICAL, INT. Task Classification: 1

Labor Resources

Subtask Description	Labor Hrs
1.REPLACE DRY SECONDARY CELL	0.307000

Material Resources

Description	Quantity	Unit Cost
BATTERY DRY	1	100.0000
		100.0000

SUMMARY

Resources	UOM	Direct	Indirect	Total
Labor	Hours	0.307000	0.092100	0.399100
Material	Cost $	100.000000		100.000000
Equipment	Hours			0.399100

Components In This Task: 1283400

APPENDIX D:

TASK DATA BASE RESOURCE SUMMARY TABLES

UM=Unit of Measure TRD=Trade Index Class=Task Classification TWPMTH=Task Work Performace Method

CACES		DESCRIPTION	UM	TRD	CLASS	HIGH FREQ	AVE FREQ	LOW FREQ	LABOR HOURS	MATERIAL COSTS	EQUIPMENT HOURS	TWPMTH
1	7	1100000 INTERIOR ELECTRICAL										
2	1	1110000 SERVICE & DISTRIBUTION										
3	1	1112000 OVERHEAD SERVICE FEEDER										
1112001		REPAIR CABLE SPLICE	4	2	0	6.00	12.00	36.00	7.574970	1.000000	7.574970	ICIIII
1112002		CABLE INSPECTION	4	2	0	5.00	5.00	5.00	.650000	.000000	.650000	ICIIII
1112003		REPLACE SERVICE CABLE	4	2	0	15.00	30.00	90.00	21.915790	414.000000	21.915790	ICIIII
3	2	1113000 MAIN PROTECTION EQUIPMENT										
4	1	1113100 SWITCHGEAR, MAIN FRAME, 1200 A.										

UM=Unit of Measure TRD=Trade Index Class=Task Classification TWPMTH=Task Work Performace Method

CACES	DESCRIPTION	UM	TRD	CLASS	HIGH FREQ	AVE FREQ	LOW FREQ	LABOR HOURS	MATERIAL COSTS	EQUIPMENT HOURS	TWPMTH
1113101	REPAIR SWITCHGEAR	5	2	0	3.00	5.00	10.00	6.700200	607.000000	6.700200	ICIIII
1113102	PREVENTIVE MAINTENANCE AND INS	5	2	0	.50	1.00	2.00	.780000	.000000	.780000	ICIIII
1113103	REPLACE SWITCHGEAR 1200 AMP	5	2	0	10.00	20.00	40.00	1.901510	1243.500000	1.901510	ICIIII
4 2	1113200 FUSE										
1113201	REPLACE FUSE	1	2	0	25.00	50.00	100.00	.403000	250.000000	.403000	ICIIII
3 3	1114000 PRIMARY TRANSFORMER										
4 1	1114100 TRANSFORMER, LIQUID FILLED ABOVE 600 V										
1114101	REPAIR TRANSFORMER	1	2	0	5.00	10.00	20.00	3.900000	1785.000000	3.900000	ICIIII
1114102	PREVENTIVE MAINTENANCE AND INSPECTION.	1	2	0	.50	.50	.50	.384540	.000000	.384540	ICIIII
1114103	REPLACE TRANSFORMER	1	2	0	15.00	30.00	60.00	15.990000	16328.000000	15.990000	ICIIII
4 2	1114200 TRANSFORMER, DRY, ABOVE 15,000 V										
1114201	REPAIR TRANSFORMER	1	2	0	8.00	15.00	30.00	1.950000	25.000000	1.950000	ICIIII
1114202	PREVENTIVE MAINTENANCE AND INSPECTION.	1	2	0	.50	.50	.50	.384540	.000000	.384540	ICIIII
1114203	REPLACE TRANSFORMER	1	2	0	7.50	30.00	60.00	30.940000	19742.000000	30.940000	ICIIII
3 4	1115000 POWER PROTCETION EQUIPMENT										
4 1	1115100 SWITCHGEAR, INDOOR, 0-600 V										
1115101	REPAIR SWITCHGEAR	5	2	0	5.00	10.00	20.00	2.080000	650.000000	2.080000	ICIIII
1115102	PREVENTIVE MAINTENANCE AND INS	5	2	0	2.00	3.00	4.00	.013000	.000000	.013000	ICIIII
1115103	REPLACE SWITCHGEAR	5	2	0	10.00	20.00	40.00	1.124760	115.750000	1.124760	ICIIII
4 2	1115200 SWITCHGEAR, INDOOR ABOVE 600 V										
1115201	MAINTENANCE AND REPAIR	5	2	0	5.00	10.00	20.00	2.080000	1690.000000	2.080000	ICIIII
1115202	PREVENTIVE MAINTENANCE AND INS	5	2	0	2.00	3.00	4.00	.013000	.000000	.013000	ICIIII
1115203	REPLACE SWITCHGEAR	5	2	0	10.00	20.00	40.00	1.901510	167.250000	1.901510	ICIIII
3 5	1116000 SECONDARY TRANSFORMER										
4 1	1116100 TRANSFORMER, LIQUID FILLED BELOW 600 V										
1116101	MAINTENANCE AND REPAIR	1	2	0	12.00	25.00	50.00	1.300000	25.000000	1.300000	ICIIII
1116102	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	.650000	.000000	.650000	ICIIII
1116103	REPLACE TRANSFORMER	1	2	0	25.00	50.00	100.00	2.625610	7213.000000	2.625610	ICIIII
4 2	1116200 TRANSFORMER, DRY BELOW 15,000 V										
1116201	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	1.300000	75.000000	1.300000	ICIIII
1116202	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	.039000	.000000	.039000	ICIIII
1116203	REPLACE TRANSFORMER	1	2	0	15.00	30.00	60.00	2.625610	4182.000000	2.625610	ICIIII
3 6	1117000 LIGHTNING PROTECTION										
4 1	1117100 SWITCHGEAR, INDOOR, BELOW 600 V										
1117101	MAINTENANCE AND REPAIR	5	2	0	5.00	10.00	20.00	2.080000	175.000000	2.080000	ICIIII
1117102	PREVENTIVE MAINTENANCE AND INS	5	2	0	2.00	3.00	4.00	.013000	.000000	.013000	ICIIII
1117103	REPLACE SWITCHGEAR.	5	2	0	10.00	20.00	40.00	1.124240	115.750000	1.124240	ICIIII
4 2	1117200 SWITCHGEAR, INDOOR ABOVE 600 V										
1117201	MAINTENANCE AND REPAIR	5	2	0	5.00	10.00	20.00	2.080000	250.000000	2.080000	ICIIII
1117202	PREVENTIVE MAINTENANCE AND INSPECTION	5	2	0	1.00	1.00	1.00	.078000	.000000	.078000	ICIIII
1117203	REPLACE SWITCHGEAR	5	2	0	10.00	20.00	40.00	1.901510	167.250000	1.901510	ICIIII
3 7	1118000 POWER & LIGHTING DISTRIBUTION										
4 1	1118100 CABLE, THERMOPLASTIC, 601-15,000 V										
1118101	REPLACE CABLE	4	2	0	130.00	260.00	350.00	7.362810	72.000000	7.362810	ICIIII
4 2	1118200 CABLE, THERMOSETTING, 601-15,000 V										
1118201	REPLACE CABLE	4	2	0	50.00	100.00	200.00	7.362680	102.000000	7.362680	ICIIII
4 3	1118300 CABLE, LEAD COVERED, 601-15,000 V										
1118301	REPLACE CABLE	4	2	0	50.00	100.00	200.00	7.362810	324.000000	7.362810	ICIIII
4 4	1118400 CABLE, FLEXIBLE METALIC < 600 VOLT										
1118401	REPLACE CABLE	4	2	0	30.00	60.00	120.00	.562120	562.000000	.562120	ICIIII
4 5	1118500 BRANCH WIRING, 0-600 V										
1118501	REPLACE BRANCH WIRING	4	2	0	25.00	50.00	100.00	10.353070	142.000000	10.353070	ICIIII
4 6	1118600 BRANCH WIRING, OVER 600 V										

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CACES	DESCRIPTION	UM	TRD	CLASS	HIGH FREQ	AVE FREQ	LOW FREQ	LABOR HOURS	MATERIAL COSTS	EQUIPMENT HOURS	TWPMTH
1118601	REPLACE BRANCH WIRING	4	2	0	60.00	130.00	250.00	8.686080	48.000000	8.686080	ICIIII
4 7	1118700 BUSS DUCT										
1118701	MAINTENANCE AND REPAIR	3	2	0	3.00	5.00	15.00	.013000	.000000	.013000	ICIIII
1118702	PREVENTIVE MAINTENANCE AND INSPECTION	3	2	0	1.00	1.00	1.00	.002600	.000000	.002600	ICIIII
1118703	REPLACE BUSS DUCT	3	2	0	10.00	20.00	60.00	.304200	34.750000	.304200	ICIIII
4 8	1118800 CONDUIT EMT										
1118801	REPLACE EMT CONDUIT	4	2	0	150.00	200.00	250.00	28.982590	1210.500000	28.982590	ICIIII
3 8	1119000 SPECIAL EQUIPMENT										
4 1	1119100 METER, DARSONVAL GALVANOMETER										
1119101	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	15.00	4.999800	550.000000	4.999800	ICIIII
1119102	REPLACE METER	1	2	0	15.00	20.00	25.00	.975000	1401.000000	.975000	ICIIII
4 2	1119300 INVERTER										
1119301	MAINTENANCE AND REPAIR	1	2	0	.50	1.00	2.00	4.940000	3.000000	4.940000	ICIIII
1119302	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.25	.25	.25	1.300000	.000000	1.300000	ICIIII
1119303	REPLACE INVERTER	1	2	0	10.00	20.00	40.00	2.099500	1615.000000	2.099500	ICIIII
4 3	1119400 RECTIFIER, UNDER 600 V										
1119401	MAINTENANCE AND REPAIR	1	2	0	1.00	2.00	4.00	3.120000	161.000000	3.120000	ICIIII
1119402	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.33	.33	.33	1.690000	.000000	1.690000	ICIIII
1119403	REPLACE RECTIFIER	1	2	0	10.00	20.00	40.00	2.099500	620.000000	2.099500	ICIIII
2 2	1120000 POWER SYSTEM										
3 1	1122000 SAFTEY SWITCHES & BREAKERS										
4 1	1122100 SAFETY SWITCH, ENCLOSED										
1122101	MAINTENANCE AND REPAIR	1	2	0	4.00	8.00	16.00	.500500	.000000	.500500	ICIIII
1122102	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	1.00	1.00	1.00	.793000	.000000	.793000	ICIIII
1122103	REPLACE SAFETY SWITCH	1	2	0	12.00	25.00	50.00	.565370	38.970000	.565370	ICIIII
4 2	1122300 CIRCUIT BREAKERS										
5 1	1122310 CIRCUIT BREAKER, MC, 0-599 V										
1122311	MAINTENANCE AND REPAIR	1	2	0	10.00	20.00	40.00	.897000	.000000	.897000	ICIIII
1122312	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	.403000	.000000	.403000	ICIIII
1122313	REPLACE CIRCUIT BREAKER	1	2	0	125.00	250.00	400.00	.750490	242.000000	.750490	ICIIII
5 2	1122320 CIRCUIT BREAKER, MC, 600 V AND OVER										
1122321	REPAIR FAILED BREAKER	1	2	0	5.00	10.00	20.00	2.099500	79.800000	2.099500	ICIIII
1122322	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.33	.33	.33	.403000	.000000	.403000	ICIIII
1122323	REPLACE CIRCUIT BREAKER	1	2	0	100.00	200.00	400.00	.972920	871.000000	.972920	ICIIII
5 3	1122330 CIRCUIT BREAKER, FIXED, 0-599 V										
1122331	MAINTENANCE AND REPAIR	1	2	0	50.00	100.00	200.00	.897000	.000000	.897000	ICIIII
1122332	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	1.00	1.00	1.00	.403000	.000000	.403000	ICIIII
1122333	REPLACE CIRCUIT BREAKER	1	2	0	125.00	250.00	400.00	.750490	69.000000	.750490	ICIIII
5 4	1122340 CIRCUIT BREAKER, FIXED, 600V AND OVER										
1122341	REPAIR FAILED BREAKER	1	2	0	2.00	4.00	8.00	2.099500	250.000000	2.099500	ICIIII
1122342	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.33	.33	.33	.403000	.000000	.403000	ICIIII
1122343	REPLACE CIRCUIT BREAKER	1	2	0	6.00	12.00	24.00	.972920	13169.000000	.972920	ICIIII
3 2	1123000 MOTOR STARTER										
4 1	1123600 MOTOR STARTER, 0-600 V										
1123601	MAINTENANCE AND REPAIR	1	2	0	3.00	5.00	10.00	1.950000	25.000000	1.950000	ICIIII
1123602	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	.650000	.000000	.650000	ICIIII
1123603	REPLACE STARTER	1	2	0	9.00	18.00	36.00	.838240	95.160000	.838240	ICIIII
4 2	1123700 MOTOR STARTER, 601-15,000 V										
1123701	MAINTENANCE AND REPAIR	1	2	0	2.00	3.00	6.00	6.700200	75.000000	6.700200	ICIIII
1123702	PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.25	.25	.25	.650000	.000000	.650000	ICIIII
1123703	REPLACE STARTER	1	2	0	9.00	18.00	36.00	.901030	2304.000000	.901030	ICIIII
3 3	1124000 CONTACTORS AND RELAYS										
1124001	MAINTENANCE AND REPAIR	1	2	0	2.00	3.00	6.00	2.600000	15.000000	2.600000	ICIIII

UM=Unit of Measure TRD=Trade Index Class=Task Classification TWPMTH=Task Work Performace Method

CACES	DESCRIPTION	UM	TRD	CLASS	HIGH FREQ	AVE FREQ	LOW FREQ	LABOR HOURS	MATERIAL COSTS	EQUIPMENT HOURS	TWPMTH
1124002	PREVENTIVE MAINTENANCE	1	2	0	.50	.50	.50	.208000	.000000	.208000	ICIIII
1124003	REPLACE CONTACTOR/RELAY	1	2	0	9.00	18.00	36.00	.750490	190.000000	.750490	ICIIII
3 4	1127000 RECEPTACLES & PLUGS										
4 1	1127100 WIRING DEVICE, SWITCH										
1127101	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	15.00	.500500	1.500000	.500500	ICIIII
1127102	REPLACE SWITCH	1	2	0	8.00	15.00	30.00	.477360	4.230000	.477360	ICIIII
4 2	1127200 RECEPTACLE AND PLUG										
1127201	MAINTENANCE AND REPAIR	1	2	0	15.00	20.00	25.00	.510900	1.500000	.510900	ICIIII
1127202	REPLACE RECEPTACLE/PLUG	1	2	0	10.00	20.00	40.00	.477360	5.550000	.477360	ICIIII
4 3	1127300 SWITCH, PULL CORD										
1127301	MAINTENANCE AND REPAIR-SWITCH	1	2	0	3.00	5.00	7.00	.500500	1.500000	.500500	IIIIII
1127302	REPLACE SWITCH, PULL CORD	1	2	0	8.00	15.00	30.00	.477360	4.230000	.477360	IIIIII
2 3	1130000 LIGHTING SYSTEM										
3 1	1131000 LIGHTING FIXTURES										
4 1	1131100 INCANDESCENT LIGHTING FIXTURE										
1131101	MAINTENANCE AND REPAIR	1	2	0	10.00	20.00	30.00	.390000	10.000000	.390000	ICIIII
1131102	LAMPS	1	2	0	2.00	5.00	8.00	.068640	.900000	.068640	SCSIII
1131103	LIGHTING FIXTURE	1	2	0	10.00	20.00	40.00	.448500	16.000000	.448500	ICIIII
4 2	1131200 QUARTZ LIGHTING FIXTURE										
1131201	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	.390000	1.160000	.390000	ICIIII
1131202	REPLACE LAMP	1	2	0	5.00	10.00	15.00	.032760	45.000000	.032760	SSIIII
1131203	REPLACE FIXTURE	1	2	0	10.00	20.00	40.00	.448500	55.000000	.448500	ICIIII
4 3	1131300 FLUORESCENT LIGHTING FIXTURE										
1131301	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	.832520	15.000000	.832520	ICIIII
1131302	REPLACE LAMPS (2)	1	2	0	5.00	10.00	15.00	.045890	4.500000	.045890	ICIIII
1131303	REPLACE FIXTURE	1	2	0	10.00	20.00	40.00	.741260	64.000000	.741260	ICIIII
4 4	1131400 HID										
5 1	1131410 HID, MERCURY VAPOR FIXTURE, 250-W										
1131411	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	.615420	50.000000	.615420	ICIIII
1131412	REPLACE LAMP	1	2	0	5.00	10.00	15.00	.068640	27.000000	.068640	ICIIII
1131413	REPLACE FIXTURE	1	2	0	10.00	20.00	40.00	.581620	127.000000	.581620	ICIIII
5 2	1131420 HID, METAL HALID FIXTURE, 250-W										
1131421	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	.615420	65.000000	.615420	ICIIII
1131422	REPLACE LAMP	1	2	0	3.00	5.00	8.00	.068640	40.000000	.068640	ICIIII
1131423	REPLACE FIXTURE	1	2	0	10.00	20.00	40.00	.435500	186.000000	.435500	ICIIII
4 5	1131500 EMERGENCY LIGHTING FIXTURE										
1131501	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	.390000	1.160000	.390000	ICIIII
1131502	REPLACE LAMP	1	2	0	1.00	2.00	3.00	.068640	1.140000	.068640	ICIIII
1131503	REPLACE FIXTURE	1	2	0	10.00	20.00	40.00	3.147820	95.000000	3.147820	ICIIII
4 6	1131600 SODIUM FIXTURE										
5 1	1131610 H.P. 250 WATT										
1131611	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	.615420	220.000000	.615420	ICIIII
1131612	REPLACE LAMP	1	2	0	5.00	10.00	15.00	.200460	140.000000	.200460	ICIIII
1131613	REPLACE FIXTURE	1	2	0	5.00	20.00	40.00	.448500	412.000000	.448500	ICIIII
5 2	1131620 L.P. 200 WATT										
1131621	MAINTENANCE AND REPAIR	1	2	0	5.00	10.00	20.00	.615420	160.000000	.615420	ICIIII
1131622	REPLACE LAMP	1	2	0	5.00	10.00	15.00	.200460	25.000000	.200460	ICIIII
1131623	REPLACE FIXTURE	1	2	0	10.00	20.00	40.00	.448500	322.000000	.448500	ICIIII
2 4	1140000 GROUNDING SYSTEM										
3 1	1141000 ELECTRICAL SERVICE GROUND										
1141001	MAINTENANCE AND REPAIR	4	2	0	12.00	25.00	75.00	1.054820	2.220000	1.054820	ICIIII
1141002	REPLACE ELECTRICAL SERVICE GROUND	4	2	0	25.00	50.00	150.00	11.971180	302.200000	11.971180	ICIIII
3 2	1142000 BUILDING STUCTURE GROUND										

UM=Unit of Measure TRD=Trade Index Class=Task Classification TWPMTH=Task Work Performace Method

CACES		DESCRIPTION	UM	TRD	CLASS	HIGH FREQ	AVE FREQ	LOW FREQ	LABOR HOURS	MATERIAL COSTS	EQUIPMENT HOURS	TWPMTH
2	5	1250000 HOSPITAL SYSTEM										
3	1	1251000 NURSE CALL										
4	1	1251001 MAINTENANCE AND REPAIR										
3	2	1252000 DOCTOR PAGING										
4	1	1252001 MAINTENANCE AND REPAIR										
3	3	1253000 DOCTOR REGISTER										
4	1	1253001 MAINTENANCE AND REPAIR										
3	4	1254000 GROUND DETECTION										
4	1	1254001 MAINTENANCE AND REPAIR										
3	5	1255000 NARCOTICS ALARM										
4	1	1255001 MAINTENANCE AND REPAIR										
3	6	1256000 OXYGEN ALARM										
4	1	1256001 MAINTENANCE AND REPAIR										
2	6	1260000 CLOCK & PROGRAM SYSTEM										
3	1	1261000 CLOCK AND PROGRAM SYSTEM										
4	1	1261001 MAINTENANCE AND REPAIR										
2	7	1270000 ELECTRIC HEATING SYSTEM										
3	1	1271000 BASEBOARD HEATERS										
1271001		MAINTENANCE AND REPAIR	1	2	0	1.00	2.00	4.00	.600600	.000000	.600600	ICIIII
1271002		PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	1.099800	.000000	1.099800	ICIIII
1271003		REPLACE BASEBOARD HEATER	1	2	0	10.00	20.00	30.00	2.499900	224.000000	2.499900	ICIIII
3	2	1272000 WALL & CEILING HEATERS										
4	1	1272100 WALL MOUNTED & RECESSED WITH FAN										
1272101		MAINTENANCE AND REPAIR	1	2	0	3.00	5.00	7.00	.975000	35.000000	.975000	ICIIII
1272102		PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	1.00	1.00	1.00	1.099800	.000000	1.099800	ICIIII
1272103		REPLACE HEATER	1	2	0	10.00	20.00	20.00	2.499900	130.000000	2.499900	ICIIII
4	2	1272200 RADIANT SUSPENDED, COMMERCIAL										
1272201		MAINTENANCE AND REPAIR	1	2	0	1.00	2.00	4.00	.600600	.000000	.600600	ICIIII
1272202		PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	1.099800	.000000	1.099800	ICIIII
1272203		REPLACE HEATER	1	2	0	8.00	15.00	20.00	2.499900	250.000000	2.499900	ICIIII
4	3	1272300 INFRARED SUSPENDED, COMMERCIAL										
1272301		MAINTENANCE AND REPAIR	1	2	0	.50	1.00	2.00	.600600	.000000	.600600	ICIIII
1272302		PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	1.099800	.000000	1.099800	ICIIII
1272303		REPLACE IR HEATER	1	2	0	8.00	15.00	20.00	2.499900	159.000000	2.499900	ICIIII
3	3	1273000 INDUSTRIAL HEATERS										
4	1	1273100 STANDARD SUSPENDED HEATER										
1273101		MAINTENANCE AND REPAIR	1	2	0	1.00	2.00	4.00	.600600	25.000000	.600600	ICIIII
1273102		PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	1.099800	.000000	1.099800	ICIIII
1273103		REPLACE HEATER	1	2	0	8.00	15.00	20.00	2.499900	250.000000	2.499900	ICIIII
4	2	1273200 EXPLOSION PROOF INDUSTRIAL										
1273201		MAINTENANCE AND REPAIR	1	2	0	1.00	2.00	4.00	.600600	50.000000	.600600	ICIIII
1273202		PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	1.099800	.000000	1.099800	ICIIII
1273203		REPLACE HEATER	1	2	0	8.00	15.00	20.00	2.499900	500.000000	2.499900	ICIIII
3	4	1274000 DUCT HEATERS										
1274001		MAINTENANCE AND REPAIR	1	2	0	.50	1.00	2.00	.600600	50.000000	.600600	ICIIII
1274002		PREVENTIVE MAINTENANCE AND INSPECTION	1	2	0	.50	.50	.50	1.099800	.000000	1.099800	ICIIII
1274003		REPLACE DUCT HEATER	1	2	0	8.00	15.00	20.00	2.499900	263.000000	2.499900	ICIIII
2	8	1280000 POWER GENERATING SYSTEM										
3	1	1281000 ENGINE GENERATOR SETS										
4	1	1281100 GENERATOR, GASOLINE POWERED										
1281102		PREVENTIVE MAINTENANCE	1	2	0	.08	.08	.08	.799500	.000000	.799500	ICIIII
1281103		REPLACE GENERATOR COMPONENT	1	2	0	12.00	25.00	50.00	280.020000	200000.000000	280.020000	ICIIII
4	2	1281200 GENERATOR, DIESEL										

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